

November 22, 2006

Burns & McDonnell, San Francisco 393 E. Grand Avenue, Suite J San Francisco, CA 94080

Attention:

Gary Messerotes

Project:

Weber

40641

Sampled: 10/17/06

Test America Number: IPJ1685

Dear Mr. Messerotes:

Frontier Analytical Laboratories performed Method DLM02.0 for tetra- through octa- chlorinated dibenzo dioxins and furans analysis for the project referenced above. Please use the following cross-reference table when reviewing your results.

Burns & McDonnell ID	Test America- Irvine ID	Frontier ID
SW-3	IPJ1685-01	4118-001-SA

Attached is the original report from Frontier Analytical Laboratories. If you have any questions or require further assistance, please contact me at (949) 261-1022 extension 213.

Sincerely yours,

TESTAMERICA

Patty Mata

Project Manager

Enclosure





October 27, 2006

FAL Project ID: 4118

Ms. Patty Mata TestAmerica 17461 Derian Avenue, Suite 100 Irvine, CA 92614

Dear Ms. Mata,

Enclosed are the results for Frontier Analytical Laboratory project **4118**. This corresponds to your project #IPJ1685. The one aqueous sample received on 10/19/2006 was extracted and analyzed by EPA Method DLM02.0 for tetra through octa chlorinated dibenzo dioxins and furans. TestAmerica requested a turnaround time of fifteen business days for project **4118**.

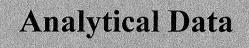
The following Level IV report consists of two separate sections. The first section is the standard Frontier Analytical Laboratory Level I data package. This includes the case narrative, our project-sample tracking log, the analytical results, your chain of custody, our sample login form, and a sample photo. The second section is the EPA Method DLM02.0 data package. This includes the case narrative and all items listed on the CDD/CDF complete SDG file (CSF) inventory sheet.

I verify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or is/her designee, as verified by the following signature.

If you have any questions regarding project **4118**, please contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Bradley B. Silverbush Director of Operations





Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: 4118

Received on: 10/19/2006

Project Due:

11/10/2006

Storage:

R1

FAL Sample ID Dup

Client Project ID Client Sample ID Requested Method

Matrix

Sampling Date Sampling

4118-001-SA

•

IPJ1685

IPJ1685-01

DLM02.0 D/F

Aqueous

10/17/2006

11:40 am

EPA Method DLM02.0 PCDD/F



FAL ID: 4118-001-MB Client ID: Method Blank Matrix: Aqueous Batch No: X0990

Date Extracted: 10-25-2006

Date Received: NA Amount: 1.000 L

ICal: PCDDFAL3-10-24-06

GC Column: DB5

Units: pg/L

Acquired: 10-26-2006

WHO TEQ: 0.00

				*			÷ .			
Compound	Cond	; DL	Qual	WHO Tox		MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8-PeCDF 2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HxCDF		1.01 2.01 2.66 2.85 2.18 3.65 0.699 1.86 1.65 1.26 1.15 1.33 1.45		- - - - - - - - - - - - - - - - - - -		0.488 0.503 0.681 0.689 0.793 0.714 2.15 0.435 0.572 0.543 0.291 0.285 0.317 0.276 0.373	Total TCDD Total PeCDD Total HxCDD Total HpCDD Total TCDF Total PeCDF	ND ND ND ND	0.762 1.01 2.85 2.18	
1,2,3,4,7,8,9-HpCDF OCDF	ND ND			-		0.540 1.01	Total HxCDF Total HpCDF	ND ND	1.45 1.57	
13C-2,3,7,8-TCDD 13C-1,2,3,7,8-PeCDD 13C-1,2,3,4,7,8-HxCDD 13C-1,2,3,4,7,8-HxCDD 13C-1,2,3,4,6,7,8-HpCDD 13C-1,2,3,4,6,7,8-PeCDF 13C-1,2,3,4,7,8-PeCDF 13C-1,2,3,4,7,8-PeCDF 13C-1,2,3,4,7,8-HxCDF 13C-1,2,3,4,7,8-HxCDF 13C-1,2,3,4,6,7,8-HxCDF 13C-1,2,3,4,6,7,8-HxCDF 13C-1,2,3,4,6,7,8-HyCDF 13C-1,2,3,4,6,7,8-HpCDF 13C-1,2,3,4,6,7,8-HpCDF 13C-1,2,3,4,6,7,8-HpCDF 13C-1,2,3,4,6,7,8-HpCDF 13C-1,2,3,4,6,7,8-HpCDF	% Rec 93.0 97.5 78.5 76.4 74.7 74.1 92.9 108 113 74.9 76.6 80.2 74.2 71.9 72.7 69.9	QC Limits 25.0 - 164 25.0 - 181 32.0 - 141 28.0 - 130 23.0 - 140 17.0 - 157 24.0 - 169 24.0 - 185 21.0 - 178 26.0 - 152 26.0 - 123 28.0 - 136 29.0 - 147 28.0 - 138 17.0 - 157	Qual		CDEFJMDN	signal to Analyte is Chemica Presence Analyte of Analyte of Analyte of Maximum Analyte N Not Provi Sample at Matrix int	Labeled Standard noise ratio is >10 s present in Metro Interference of Diphenyl Ethoncentration is a confirmation on someonentration is be a possible concerted ded acceptance criterierferences seen from dilution	oct 19:11 ers bove calible econdary collelow calible ntration	ration rang column ration rang	je l
	103	35.0 - 197								
37CI-2,3,7,8-TCDD	103	33.0 - 187					*			

10/27/06 Date:

EPA Method DLM02.0 PCDD/F



FAL ID: 4118-001-OPR Client ID: OPR Matrix: Aqueous Batch No: X0990 Date Extracted: 10-25-2006 Date Received: NA

Amount: 1.000 L

ICal: PCDDFAL3-10-24-06 GC Column: DB5 Units: ng/ml Acquired: 10-26-2006 WHO TEQ: NA

С	ompound	Conc	QC Limits	
	8-HxCDD 9-HxCDD	10.3 52.3 51.9 53.7 54.2 53.4 109	6.70 - 15.8 35.0 - 71.0 35.0 - 82.0 38.0 - 67.0 32.0 - 81.0 35.0 - 70.0 78.0 - 144	
1,2,3,7,	8-HxCDF 8-HxCDF 9-HxCDF 8-HpCDF	11.4 54.6 55.3 52.5 53.4 53.7 53.8 55.0 54.8 110	7.50 - 15.8 40.0 - 67.0 34.0 - 80.0 36.0 - 67.0 42.0 - 65.0 39.0 - 65.0 35.0 - 78.0 41.0 - 61.0 39.0 - 69.0 63.0 - 170	
Internal S	Standards	% Rec	QC Limits	
13C-2,3,7 13C-1,2,3,7,1 13C-1,2,3,4,7,1 13C-1,2,3,6,7,1 13C-1,2,3,4,6,7,1	8-PeCDD 8-HxCDD 8-HxCDD	88.8 101 79.5 76.6 75.5 71.7	20.0 - 175 21.0 - 227 21.0 - 193 25.0 - 163 26.0 - 166 13.0 - 198	
13C-2,3,7 13C-1,2,3,7, 13C-2,3,4,7, 13C-1,2,3,4,7, 13C-1,2,3,6,7, 13C-1,2,3,7,8, 13C-1,2,3,4,6,7, 13C-1,2,3,4,7,8,	8-PeCDF 8-PeCDF 8-HxCDF 8-HxCDF 8-HxCDF 9-HxCDF 8-HpCDF	86.9 99.6 106 77.3 78.1 80.4 75.4 -73.1 72.7 69.2	22.0 - 152 21.0 - 192 13.0 - 328 19.0 - 202 21.0 - 159 17.0 - 205 22.0 - 176 21.0 - 158 20.0 - 186 13.0 - 198	
Cleanup S	Surrogate			
37CI-2,3,7	,8-TCDD	93.0	31.0 - 191	

А	signal to noise ratio is >10:1
В	Analyte is present in Method Blank
С	Chemical Interference
D	Presence of Diphenyl Ethers
Ε	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
М	Maximum possible concentration
ND	Analyte Not Detected
NP	Not Provided
s	Sample acceptance criteria not met
Χ	Matrix interferences

Result taken from dilution or reinjection

A Isotopic Labeled Standard outside QC range but

Analyst: A

Reviewed By: Date: (3/39/02

EPA Method DLM02.0 PCDD/F



FAL ID: 4118-001-SA Client ID: IPJ1685-01 Matrix: Aqueous Batch No: X0990

Date Extracted: 10-25-2006 Date Received: 10-19-2006

Amount: 1.036 L

ICal: PCDDFAL3-10-24-06

GC Column: DB5

Units: pg/L

Acquired: 10-26-2006 WHO TEQ: 0.00202

Sator No. A0990	· ·					J		
Compound	Conc	DL	Qual	WHO Tox	MDL	Compound	Conc	DL Qual
2,3,7,8-TCDD 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD	ND ND ND ND	1.00 0.959 1.30 1.70		- - - -	0.488 0.503 0.681 0.689	Total TCDD	ND	1.00
1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD OCDD	ND ND 20.2	1.80 3.34	J	0.00202	0.793 0.714 2.15	Total PeCDD Total HxCDD Total HpCDD	ND ND ND	0.959 1.80 3.34
2,3,7,8-TCDF 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	ND ND ND ND ND ND ND ND ND	0.622 1.07 0.946 0.558 0.491 0.568 0.609 1.34 1.61 3.04			0.435 0.572 0.543 0.291 0.285 0.317 0.276 0.373 0.540 1.01	Total TCDF Total PeCDF Total HxCDF Total HpCDF	ND ND ND ND	0.622 1.07 0.609 1.61
13C-2,3,7,8-TCDD 13C-1,2,3,4,7,8-HxCDD 13C-1,2,3,4,7,8-HxCDD 13C-1,2,3,4,6,7,8-HxCDD 13C-1,2,3,4,6,7,8-HpCDD 13C-0,2,3,4,6,7,8-TCDF 13C-1,2,3,7,8-PeCDF 13C-1,2,3,4,7,8-PeCDF 13C-1,2,3,4,7,8-HxCDF 13C-1,2,3,4,7,8-HxCDF 13C-1,2,3,4,7,8-HxCDF 13C-1,2,3,4,6,7,8-HxCDF 13C-1,2,3,7,8,9-HxCDF 13C-1,2,3,7,8,9-HxCDF	87.1 25 88.7 25 82.0 32 81.3 28 86.4 23 89.5 17 87.4 24 93.2 24 96.4 21 76.5 26 77.6 26 80.4 28 79.7 29	C Limits 0.0 - 164 0.0 - 181 0.0 - 141 0.0 - 130 0.0 - 140 0.0 - 157 0.0 - 169 0.0 - 178 0.0 - 178 0.0 - 178 0.0 - 130 0.0 - 130 0.0 - 136 0.0 - 147 0.0 - 143	Qual		signal to B Analyte is C Chemica D Presence E Analyte of F Analyte of J Analyte of M Maximum	Labeled Standard noise ratio is >10 s present in Meth I Interference of Diphenyl Etheoncentration is a confirmation on seconcentration is being possible concernot Detected ided	od Blank ers bove calibrecondary coelow calibre	ation range olumn
13C-1,2,3,4,7,8,9-HpCDF 13C-OCDF	84.4 26	.0 - 138 .0 - 157			X Matrix int	acceptance criteri erferences ken from dilution		on
37CI-2,3,7,8-TCDD	90.4 35	.0 - 197		·				

Date:

Sample Receipt



SENDING LABORATORY:



RECEIVING LABORATORY:

SUBCONTRACT ORDER - PROJECT # IPJ1685

17461 Derian Avenue. Suite Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 260-3297 Project Manager: Patty Mata	100		5172 Hillsdale C El Dorado Hills, Phone :(916) 934 Fax: (916) 934-0	Circle CA 95762 4-0900	
Work Order Comments:	Need method DLI	M020-Dioxins/Furans	, Geotracker EDF, ERPI	MS EDD.	
Standard TAT is requested	unless specific d	ue date is requeste	d => Due Date:		Initials:
Analysis	Expiration	,		Comments	
Sample ID: IPJ1685-01 Wate № 8299/1613 -Dioxin-HR EDF	er Sampled: 10/24/06 11:40 11/14/06 11:40	: 10/17/06 11:40		Sub Frontier Analytica Global=SL603798629	al. Need DLM020 method
Containers Supplied: 1 L Amber (IPJ1685-01A) 1 L Amber (IPJ1685-01B)					
		SAMPL	E INTEGRITY:		j
		Sample labels/COC agree: Samples Preserved Properly	Yes D No	Samples Received On Ice: Samples Received at (term	
Released By	U 10/1 Date	8 10 6 Time	Received By	Moery Date	70/19/36 1000 Time
Released By	Date	Time	Received By	Date	000Timeof 00019



Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: 4118

Client:	TestAmerica - Irvine, CA
Client Project ID:	IPJ1685
Date Received:	10/19/2006
Time Received:	10:00 am
Received By:	NM
Logged In By:	NM
# of Samples Received:	1
Duplicates:	1
Storage Location:	R1

Method of Delivery:	Fed-Ex
Tracking Number:	792225085535
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	Yes
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	10/28/2006
Adequate Sample Volume	Yes
Anomalies or additional comments:	





2.
 3.
 4.

T.A	BORATORY NAME Frontier Analytical Laborator		THE STEEL		· · · · · · · · · · · · · · · · · · ·
	TY/STATE El DOIGGO Wils/ CA				
1	SE NO SDG NO SDG NOS. TO FOR	KW WOLLT			
TA	ASK ORDER NO. NA				
CC	ONTRACT NO. WA	,			
SC	оw No		FAL-4118		
Al (F	.1 documents delivered in the Complete SDG File Reference - Exhibit B Section 2.6)	must be	original docum	ents where po	ssible.
		PA	GE NOs.	CHE	<u>CK</u>
Inv	entory Sheet (DC-2) (Do not number)	FROM	TO	LAB	<u>EPA</u>
	Narrative	<u>NA</u>	<u>_M</u>	-	******
	ffic Report		8		
-		4	10		-
<u>соо</u>	/CDF Data Sample Data				
и.	Sample Data Summary				
	(FORM I-HR CDD-1)	11			
	Toxicity Equivalence Summary (FORM I-HR CDD-2)	12	<u>1</u>		
	Second Column confirmation Summary (FORM I-HR CDD-3)	<u>NA</u>	<u>_N_A</u>	**************************************	
	Selected Ion Current Profile (SICP) for each sample	<u>/3</u>	<u>23</u>		· .
	Quantitation Reports and Area Summaries	24	24		
	Total Homologue Concentration Summary (FORM II-HR CDD)	25	<u>25</u>		
b.	Quality Control Data		· · · · · · · · · · · · · · · · · · ·	•	
	Lab Control Sample Summary (FORM III-HR CDD-1)	26	26		
	Lab Control Sample Duplicate Summary (FORM III-HR CDD-2)	NA	NA		·
	Method Blank Summary (FORM IV-HR CDD)	<u> 27</u>	27		
	Window Defining Mix Summary (FORM V-HR CDD-1)	28	29		
	Chromatographic Resolution Summary (FORM V-HR CDD-2)	36	31		•
	Analytical Sequence Summary (FORM V-HR CDD-3)	32) 		***************************************
c.	Calibration Data				
	Initial Calibration Data (FORM VI-HR CDD-1 and FORM VI-HR CDD-2), PFK mass resolution, CDD/CDF standard(s) SICPs, Quantitation Reports, and Area Summaries for the initial (five-point) calibration	33	119		
	Continuing Calibration Data (FORM VII-HR CDD-1 and FORM VII-HR CDD-2), PFK mass resolution, SICPs, Quantitation Reports, and Area Summaries	12 <i>U</i>	16 <i>C</i>)		
d.	Raw Quality Control Data				
	Blank Data FORM I-HR CDD-1, CDD-2, CDD-3 (if applicable)	161	163		· ·
	Blank Data including SICPs, Quantitation Reports, and Area Summaries for each blank analyzed	164	<u> </u>		
	LCS FORM I-HR CDD-1 and CDD-2	176	176		

		PAGE NO	Os.	CHECK	•
		FROM	TO	LAB	<u>EPA</u>
	LCS Data including SICPs, Quantitation Reports, and Area Summaries	177	188		
5. Mis	cellaneous Data				
	Original preparation and analysis forms or copies of preparation and analysis logbook pages	189	194	****************	
	Internal sample and sample extract transfer Chain of Custody Records	195	195	-	
	Screening records	M	NA		. <u> </u>
	All instrument output, including strip charts from screening activities (describe or list)				
		<u>w</u>	NH		
6. <u>EP</u>	A Shipping/Receiving Documents				. *
	Airbills (No. of shipments $\frac{1}{1}$)	196	196		
	Chain of Custody Records	197	197	· ·	
	Sample Tags	M	M_		
	Sample Log-In Sheet (Lab & DC-1)	198	19X_		-
	Traffic Report Cover Sheet	NA	M		
e de la companya de l	Miscellaneous Shipping/Receiving Records (describe or list)				
		M	ΛŁÀ		
		<u>/^/</u>	<u>kw</u>		
	ternal Lab Sample Transfer Records and cacking Sheets				
<u>T1</u>	(Describe or list)				
•	(Debotted of Liber)		·		
		M	NA.	· · ·	 .
8. <u>o</u> i	ther Records (describe or list)				
•	Telephone Communication Log				•
		110	M		•
		<u>~~~</u>	7.7.	- 4	
9 Com	ments:				
9. <u>Con</u>	mesico.				
Comple	eted by:	^		Λ.	Ja be
(CLP I	(ab) Tue 11	Brad SILVELOW	1513 Director of	Uperations -	10/31/06
	(Signature)	(Print Name	s % LITT6)	, j	Jale/
Audite	d by U				
(USEPA	.)			/-	\
	(Signature)	(Print Name	& Title)	(1	Date)

1DFA - FORM I-HR CDD-1 CDD/CDF SAMPLE DATA SUMMARY HIGH RESOLUTION

SAMPLE No. IPJ1685-01

LAB NAME: FRONTIER ANALYTICAL LAB

CASE NO.:

SDG NO.:

LAB CODE: FALE MATRIX: (SOIL/WATER/ASH/TISSUE/OIL) WATER

CONTRACT: TO NO.:

LAB SAMPLE ID: 4118-001-SA

SAMPLE wt/vol: 1036

(g/mL): mL (SEPF/SPE) LAB FILE ID: 260CT06M Sam: 5 DATE RECEIVED: 19-OCT-06

WATER SAMPLE PREP: SPE

INJECTION VOLUME: 2 (uL) % SOLIDS/LIPIDS: NA

CONCENTRATED EXTRACT VOLUME: 20 (uL) DATE EXTRACTED: 25-OCT-06

DATE ANALYZED: 26-OCT-06

GC COLUMN: DB5

ID: 0.25 (mm)

DILUTION FACTOR: NA

CONCENTRATION UNITS: (pg/L or ng/kg) pg/L

TARGET	SELECTED	PEAK	ION			
ANALYTE	IONS	RT	RATIO #	CONCENTRATION	Q	EMPC/EDL
2,3,7,8-TCDD	320/322	NotFnd	*	*	U	1.00
2,3,7,8-TCDF	304/306	NotFnd	*	*	U	0.622
1,2,3,7,8-PeCDF	340/342	NotFnd	*	*	U	1.07
1,2,3,7,8-PeCDD	356/358	NotFnd	*	*	U	0.959
2,3,4,7,8-PeCDF	340/342	NotFnd	*	* *	U	0.946
1,2,3,4,7,8-HxCDF	374/376	NotFnd	*	*	U	0.558
1,2,3,6,7,8-HxCDF	374/376	NotFnd	*	*	U	0.491
1,2,3,4,7,8-HxCDD	390/392	NotFnd	*	*	U	1.30
1,2,3,6,7,8-HxCDD	390/392	NotFnd	*	*	U	1.70
1,2,3,7,8,9-HxCDD	390/392	NotFnd	*	*	U	1.80
2,3,4,6,7,8-HxCDF	374/376	NotFnd	*	*	U	0.568
1,2,3,7,8,9-HxCDF	374/376	NotFnd	*	*	U	0.609
1,2,3,4,6,7,8-HpCDF	408/410	NotFnd	*	*	U	1.34
1,2,3,4,6,7,8-HpCDD	424/426	NotFnd	*	*	U	3.34
1,2,3,4,7,8,9-HpCDF	408/410	NotFnd	*	*	U	1.61
OCDD	458/460	49:41	0.82	20.2	J	*
OCDF	442/444	NotFnd	*	*	U	3.04

NOTE: Concentrations, Estimated Maximum Possible Concentrations (EMPCs), and Estimated Detection Levels (EDLs) for solid samples are calculated on a dry weight basis (except tissues, which are reported on a wet weight basis with % Lipids).

LABELED COMPOUNDS	SELECTED	PEAK	ION	ION RATIO		RECOVERY
	IONS	RT	RATIO #	LIMITS	% REC #	LIMITS
13C-2,3,7,8-TCDD	332/334	27:25	0.79	0.65-0.89	87.1	25-164
13C-1,2,3,7,8-PeCDD	368/370	33:12	1.57	1.32-1.78	88.7	25-181
13C-1,2,3,4,7,8-HxCDD	402/404	38:34	1.27	1.05-1.43	82.0	32-141
13C-1,2,3,6,7,8-HxCDD	402/404	38:44	1.25	1.05-1.43	× 81.3	28-130
13C-1,2,3,4,6,7,8-HpCDD	436/438	44:09	1.05	0.88-1.20	86.4	23-140
13C-OCDD	470/472	49:39	0.89	0.76-1.02	89.5	17-157
13C-2,3,7,8-TCDF	316/318	26:40	0.79	0.65-0.89	87.4	24-169
13C-1,2,3,7,8-PeCDF	352/354	31:29	1.57	1.32-1.78	93.2	24-185
13C-2,3,4,7,8-PeCDF	352/354	32:47	1.57	1.32-1.78	96.4	21-178
13C-1,2,3,4,7,8-HxCDF	384/386	37:10	0.53	0.43-0.59	76.5	26-152
13C-1,2,3,6,7,8-HxCDF	384/386	37:22	0.53	0.43-0.59	77.6	26-123
13C-1,2,3,7,8,9-HxCDF	384/386	39:44	0.52	0.43-0.59	79.7	29-147
13C-2,3,4,6,7,8-HxCDF	384/386	38:18	0.53	0.43-0.59	80.4	28-136
13C-1,2,3,4,6,7,8-HpCDF	418/420	42:15	0.44	0.37-0.51	80.8	28-143
13C-1,2,3,4,7,8,9-HpCDF	418/420	45:03	0.45	0.37-0.51	84.4	26-138
13C-OCDF	454/456	50:02	0.90	0.76-1.02	84.5	17-157
37Cl-2,3,7,8-TCDD	328/NA	27:27	NA	NA	90.4	35-197

Column to be used to flag values outside (QC) limits.

DATE: 10/27/01,

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

SDG NO.:

MATRIX: (SOIL/WATER/ASH/TISSUE/OIL) WATER

LAB SAMPLE ID: 4118-001-SA

SAMPLE wt/vol: 1036

(g/mL): mL

LAB FILE ID: 260CT06M Sam: 5

WATER SAMPLE PREP: SPE

(SEPF/SPE)

DATE RECEIVED: 19-OCT-06

CONCENTRATED EXTRACT VOLUME: 20

DATE EXTRACTED: 25-OCT-06

INJECTION VOLUME: 2 (uL) % SOLIDS/LIPIDS: NA

DATE ANALYZED: 26-OCT-06

GC COLUMN: DB5

ID: 0.25

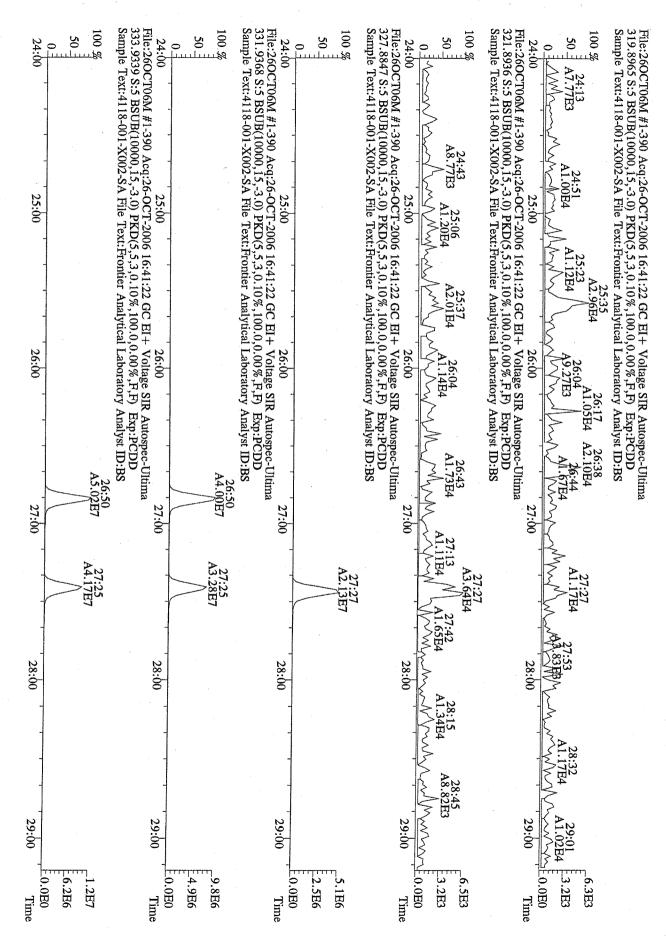
DILUTION FACTOR: NA

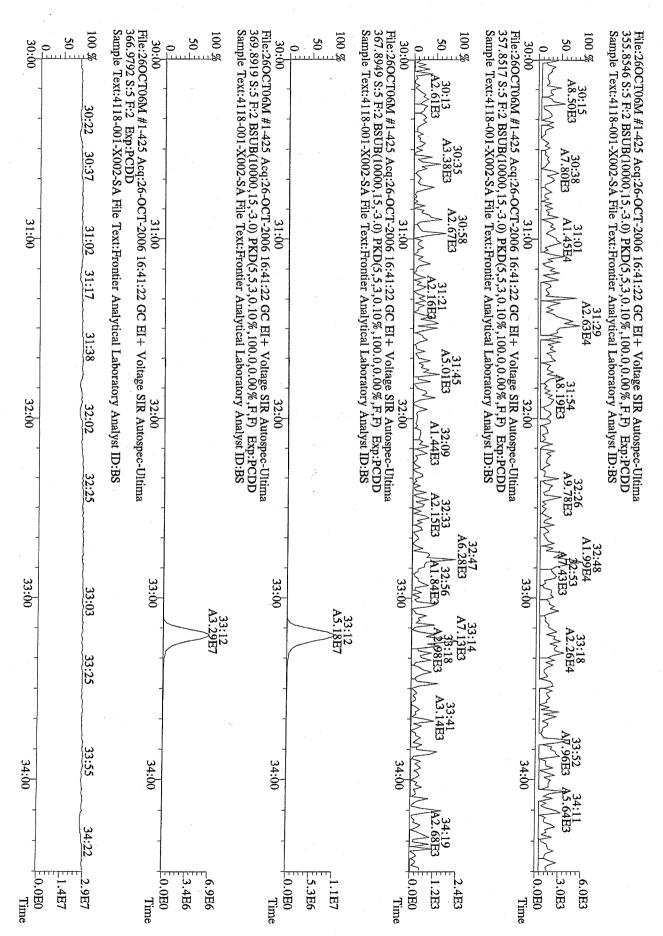
CONCENTRATION UNITS: (pg/L or ng/kg) pg/L

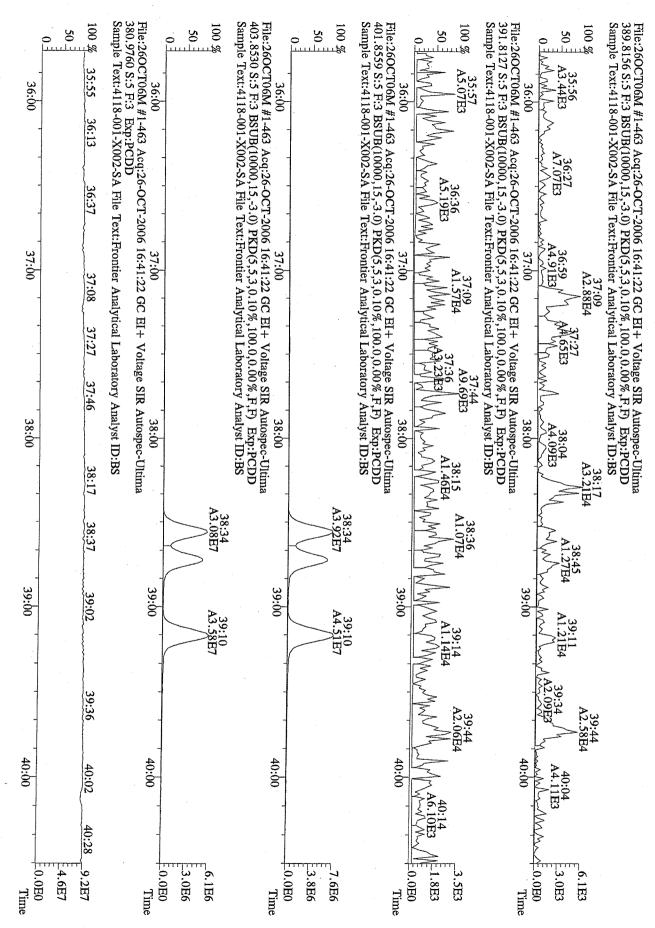
TARGET ANALYTE	CONCENTRATION	TEF*		TEF-ADJUSTED CONCENTRATION
2,3,7,8-TCDD	*	x 1.0	=	*
2,3,7,8-TCDF	*	x 0.1	=	*
1,2,3,7,8-PeCDF	*	x 0.05	=	*
1,2,3,7,8-PeCDD	*	x 0.5	=	* ,
2,3,4,7,8-PeCDF	*	x 0.5	=	*
1,2,3,4,7,8-HxCDF	*	x 0.1	=	*
1,2,3,6,7,8-HxCDF	*	x 0.1	=	*
1,2,3,4,7,8-HxCDD	*	x 0.1	=	*
1,2,3,6,7,8-HxCDD	*	x 0.1	=	*
1,2,3,7,8,9-HxCDD	*	x 0.1	=	*
2,3,4,6,7,8-HxCDF	*	x 0.1	=	*
1,2,3,7,8,9-HxCDF	*	x 0.1	=	*
1,2,3,4,6,7,8-HpCDF	*	x 0.01	=	*
1,2,3,4,6,7,8-HpCDD	*	x 0.01	=	*
1,2,3,4,7,8,9-HpCDF	*	x 0.01	=	*
OCDD	20.2	x 0.001	=	0.0202
OCDF	*	x 0.001	=	*
		Total	=	0.0202

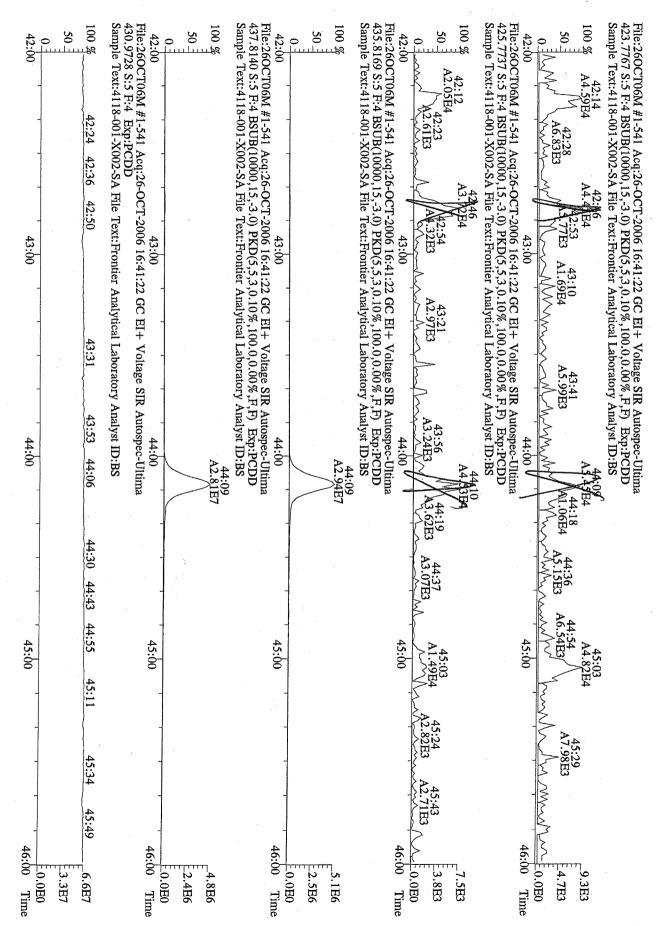
^{*} TEF - Toxicity Equivalent Factors from EPA/625/3-89/016 March 1989 - Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and Chlorinated Dibenzofurans (CDDs and CDFs) and 1989 Update

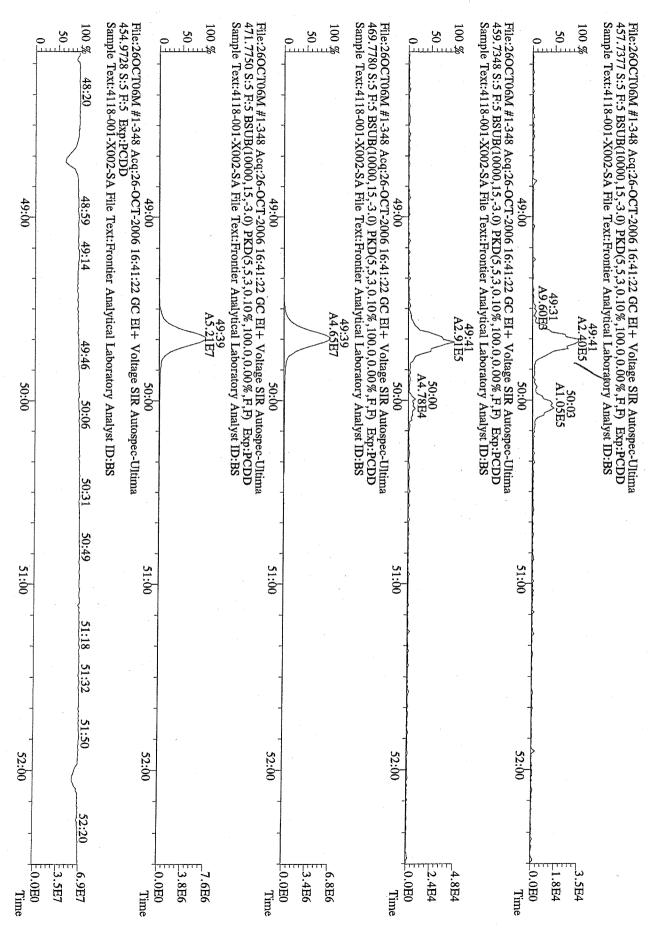
DATE: 10/27/04

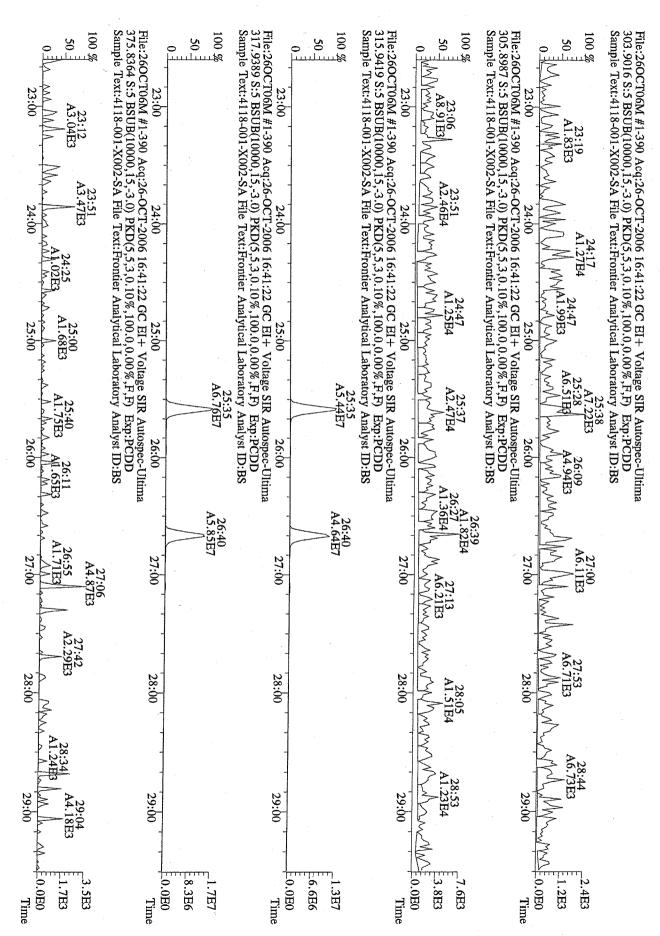


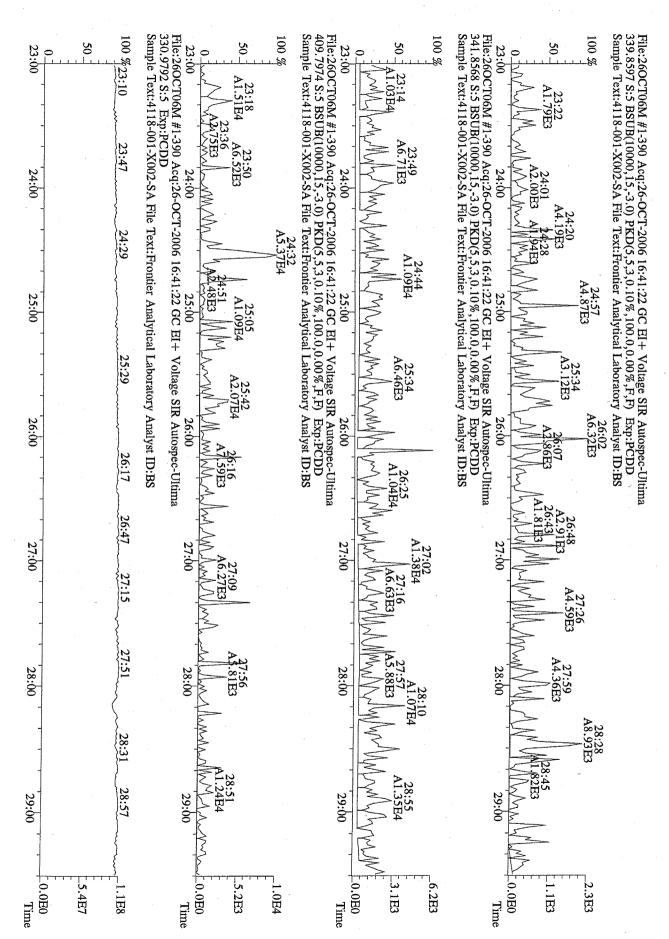


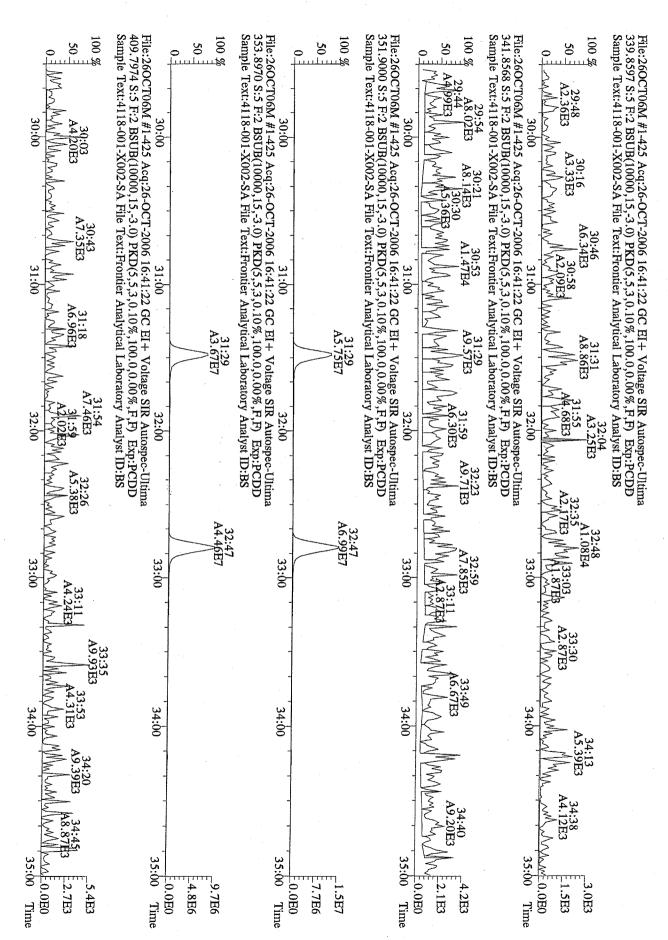


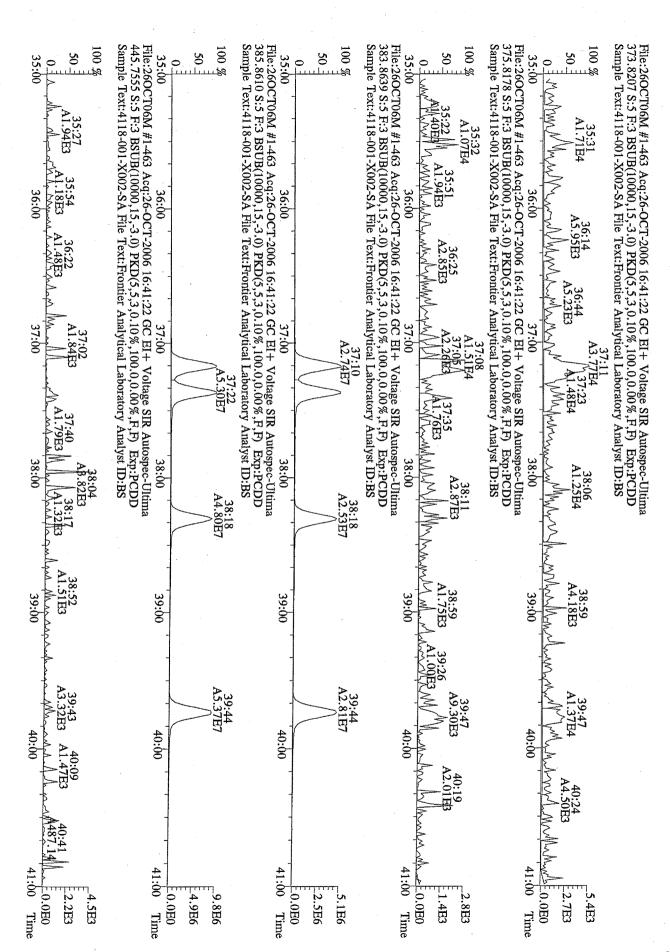


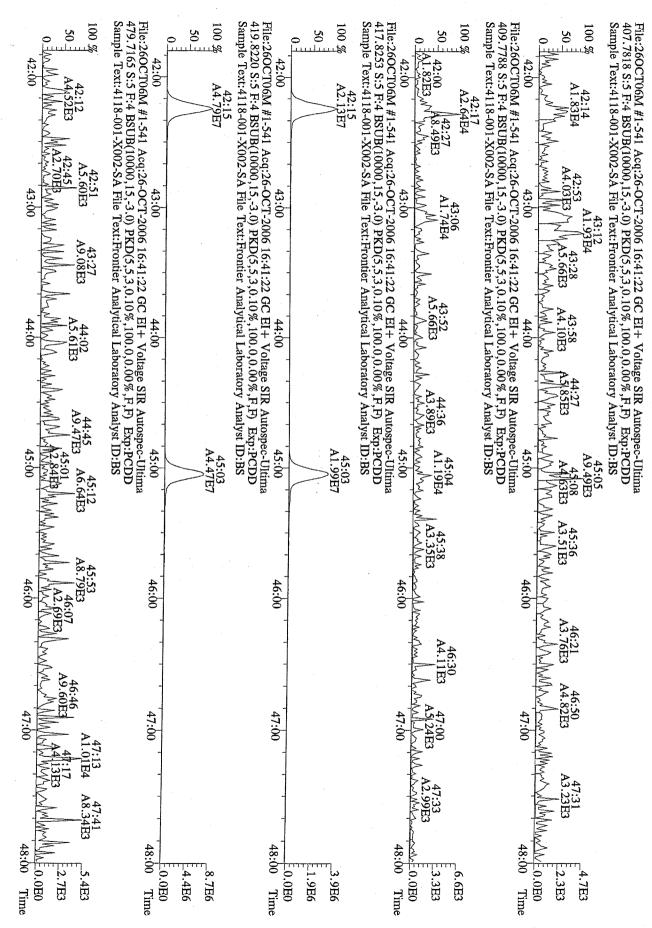


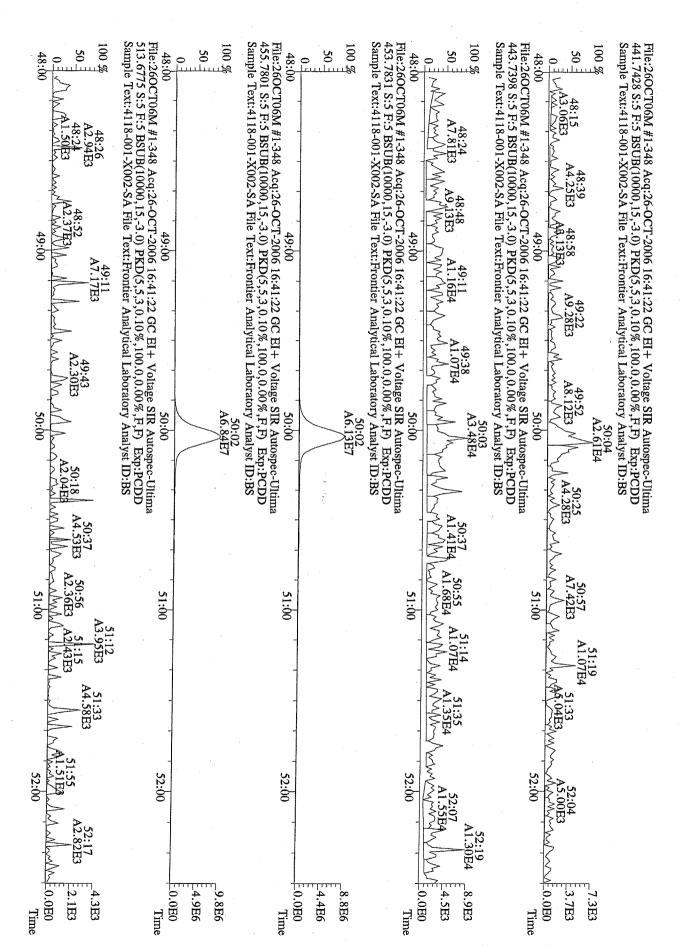












FAL ID: 4118-001-X002-SA Filename: 260CT06M Sam: 5 Acquired: 26-0CT-06 16:41:22 | ICal: PCDDFAL3-10-24-06 Client ID: IPJ1685-01 ConCal: ST102606M1 EndCal: ST102606M2 Results: 4117 GC Column: DB5 Amount: 1.036 NATO 1989 Tox: 0.0202 0.00202 WHO 1998 Tox: Name RA RT Qual DI Resp RRF Conc Fac Noise 2,3,7,8-TCDD * n NotFnd 2.50 2490 1.19 1.00 1,2,3,7,8-PeCDD * n NotFnd 2.50 949 0.959 0.69 1,2,3,4,7,8-HxCDD * n NotFnd 1480 1.30 0.94 2.50 1,2,3,6,7,8-HxCDD * n NotFnd 2.50 1480 1.70 0.81 1,2,3,7,8,9-HxCDD * n NotFnd 0.74 2.50 1480 1.80 * n NotFnd 1,2,3,4,6,7,8-HpCDD 0.89 2.50 2980 3.34 5.31e+05 0.82 y 49:41 20.2 ocpp 1.03 2.50 1740 2,3,7,8-TCDF * n NotFnd n 97 2.50 0.622 * n NotFnd 1470 1,2,3,7,8-PeCDF 0.822.50 1.07 * n NotFnd 1470 0.946 2,3,4,7,8-PeCDF 0.782.50 1,2,3,4,7,8-HxCDF * n NotFnd 0.90 2.50 1020 0.558 * n NotFnd 1020 0.491 1,2,3,6,7,8-HxCDF 1.02 2.50 0.568 * n NotFnd 2.50 1020 2,3,4,6,7,8-HxCDF 0.97 * n NotFnd 2.50 1020 0.609 1,2,3,7,8,9-HxCDF 0.89 * n NotFnd 2.50 2390 1.34 1,2,3,4,6,7,8-HpCDF 0.99 1.61 2390 1,2,3,4,7,8,9-HpCDF * n NotFnd 0.98 2.50 3.04 * n NotFnd 2,50 2600 OCDF 0.84 Rec 87.1 0.95 1680 13C-2,3,7,8-TCDD 7.45e+07 0.79 y 27:25 1710 88.7 8.47e+07 1.57 y 33:12 1.06 13C-1,2,3,7,8-PeCDD 1.27 y 38:34 1.05 1580 82.0 13C-1,2,3,4,7,8-HxCDD 7.00e+07 81.3 13C-1,2,3,6,7,8-HxCDD 6.56e+07 1.25 y 38:44 1.00 1570 1.05 y 44:09 1670 86.4 13c-1,2,3,4,6,7,8-HpCDD 5.75e+07 0.82 13C-OCDD 9.87e+07 0.89 y 49:39 89.5 0.68 3460 0.98 1690 87.4 13C-2,3,7,8-TCDF 1.05e+08 0.79 y 26:40 13C-1,2,3,7,8-PeCDF 9.42e+07 1.57 y 31:29 0.83 1800 93.2 13c-2,3,4,7,8-PeCDF 1.14e+08 1.57 y 32:47 0.97 1860 96.4 13C-1,2,3,4,7,8-HxCDF 7.95e+07 0.53 y 37:10 1.28 1480 76.5 13C-1,2,3,6,7,8-HxCDF 8.09e+07 0.53 y 37:22 1.29 1500 77.6 13C-2,3,4,6,7,8-HxCDF 7.33e+07 0.53 y 38:18 1.12 1550 80.4 79.7 13C-1,2,3,7,8,9-HxCDF 8.17e+07 0.52 y 39:44 1.27 1540 13C-1,2,3,4,6,7,8-HpCDF 6.92e+07 0.44 y 42:15 1.06 1560 80.8 13C-1,2,3,4,7,8,9-HpCDF 6.46e+07 0.45 y 45:03 0.94 1630 84.4 13C-OCDF 1.30e+08 0.90 y 50:02 0.95 3260 84.5 37Cl-2,3,7,8-TCDD 2.13e+07 27:27 0.65 698 90.4 13C-1,2,3,4-TCDD 9.02e+07 0.80 y 26:50 43.0 13C-1,2,3,4-TCDF 1.22e+08 0.80 y 25:35 38.2 13C-1,2,3,7,8,9-HxCDD 8.10e+07 1.26 y 39:10 50.7 Noise DL #Hom Fac 2.50 2490 1.00 0 Total Tetra-Dioxins NotFnd 1.19 Total Penta-Dioxins 949 0.959 0 0.69 2.50 NotFnd 0.83 1480 1.80 n 2.50 Total Hexa-Dioxins NotFnd 0.89 2.50 2980 3.34 n Total Hepta-Dioxins NotFnd Total Tetra-Furans NotFnd 0.97 2.50 1740 0.622 0 0.80 2.50 1470 1.07 0 **PeCDF** 1st Fn. Tot Penta-Furans NotFnd 1.07 0 Total Penta-Furans NotFnd 0.80 2.50 1470 0.00 0.95 2.50 1020 0.609 0 Total Hexa-Furans NotFnd 2390 1.61 0.99 2.50 O Total Hepta-Furans NotFnd

Analyst:

Date: 10/27/06

2DF - FORM II-HR CDD CDD/CDF TOTAL HOMOLOGUE CONCENTRATION SUMMARY HIGH RESOLUTION

SAMPLE No. IPJ1685-01

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

SDG NO.:

MATRIX: (SOIL/WATER/ASH/TISSUE/OIL) WATER

LAB SAMPLE ID: 4118-001-SA

SAMPLE wt/vol: 1036

(g/mL) mL

LAB FILE ID: 260CT06M Sam: 5

WATER SAMPLE PREP: SPE

(SEPF/SPE)

DATE RECEIVED: 19-OCT-06

CONCENTRATED EXTRACT VOLUME: 20

DATE EXTRACTED: 25-OCT-06

INJECTION VOLUME: 2 (uL) % SOLIDS/LIPIDS: NA

DATE ANALYZED: 26-OCT-06

GC COLUMN: DB5

ID: 0.25 (mm)

DILUTION FACTOR: NA

CONCENTRATION UNITS: (pg/L or ng/kg) pg/L

HOMOLOGUE	HOMOLOGUE PEAKS CONCI		Q	EMPC/EDL
DIOXINS				
Total TCDD	0	*	U	1.00
Total PeCDD	0	*	U	0.959
Total HxCDD	0	*	U	1.80
Total HpCDD	0	*	U	3.34
FURANS		•		
Total TCDF	0	*	U	0.622
Total PeCDF	0	*	U	1.07
Total HxCDF	0	*	U	0.609
Total HpCDF	0	*	U	1.61

NOTE: Concentrations, Estimated Maximum Possible Concentrations (EMPCs), and Estimated Detection Limits (EDLs) for solid samples are calculated on a dry weight basis (except tissues, which are reported on a wet weight basis with % Lipids). The total homologue concentrations do not affect the TEF (Toxicity Equivalent Factor) calculations.

ANALYST:

DATE: 10/27/05

3DFA - FORM III-HR CDD CDD/CDF LAB CONTROL SAMPLE SUMMARY HIGH RESOLUTION

SAMPLE No. OPR

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

SDG NO.:

MATRIX: (SOIL/WATER/ASH/TISSUE/OIL) WATER

LAB SAMPLE ID: 0990-001-OPR

SAMPLE wt/vol: 1000

(a/ml) ml

LAB FILE ID: 260CT06M Sam: 2

WATER SAMPLE PREP: SPE

(SEPF/SPE)

DATE RECEIVED: 25-OCT-06

CONCENTRATED EXTRACT VOLUME: 20

DATE EXTRACTED: 25-OCT-06

INJECTION VOLUME: 2 (uL)

DATE ANALYZED: 26-OCT-06

GC COLUMN: DB5

ID: 0.25 (mm)

DILUTION FACTOR: NA

CONCENTRATION UNITS: (pg/L or ng/kg) pg/L

	SPIKE	AMOUNT	PERCENT		QC
SPIKE ANALYTE	ADDED	RECOVERED	RECOVERY	#	LIMITS
2,3,7,8-TCDD	10	10.3	103		67-158
2,3,7,8-TCDF	10	11.4	114		75-158
1,2,3,7,8-PeCDF	50	54.6	109		80-134
1,2,3,7,8-PeCDD	50	52.3	105		70-142
2,3,4,7,8-PeCDF	50	55.3	111		68-160
1,2,3,4,7,8-HxCDF	50	52.5	105		72-134
1,2,3,6,7,8-HxCDF	50	53.4	107		84-130
1,2,3,4,7,8-HxCDD	50	51.9	104		70-164
1,2,3,6,7,8-HxCDD	50	53.7	107		76-134
1,2,3,7,8,9-HxCDD	50	54.2	108		64-162
2,3,4,6,7,8-HxCDF	50	53.7	107		70-156
1,2,3,7,8,9-HxCDF	50	53.8	108		78-130
1,2,3,4,6,7,8-HpCDF	50	55.0	110		82-132
1,2,3,4,6,7,8-HpCDD	50	53.4	107		70-140
1,2,3,4,7,8,9-HpCDF	50	54.8	110		78-138
OCDD	100	109	109		78-144
OCDF	100	110	110		63-170

Column to be used to flag values outside Quality Control (QC) Limits.

Laboratory Control Sample Recovery: 0 Outside limits of 17 total.

ANALYST:

DATE: 10/2-1/01

4DF - FORM IV-HR CDD CDD/CDF METHOD BLANK SUMMARY HIGH RESOLUTION

SAMPLE No. Method Blank

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

SDG NO.:

MATRIX: (SOIL/WATER/ASH/TISSUE/OIL) WATER

LAB SAMPLE ID: 0990-001-MB

WATER SAMPLE PREP: SPE (SEPF/SPE)

LAB FILE ID: 260CT06M Sam: 3

GC COLUMN: DB5

ID: 0.25 (mm)

DATE EXTRACTED: 25-OCT-06

INSTRUMENT ID: FAL3

DATE ANALYZED: 26-OCT-06

THIS METHOD BLANK APPLIES TO LABORATORY CONTROL SAMPLES (LCSs).

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1613 CS3 (061011J)	ST102606M1	260CT06M 1	26-0CT-06
OPR	0990-001-OPR	260CT06M 2	26-0CT-06
Method Blank	0990-001-MB	260CT06M 3	26-0CT-06
ZZZZZ	ZZZZZ	260CT06M 4	26-OCT-06
IPJ1685-01	4118-001-SA	260CT06M 5	26-0CT-06
ZZZZZ	ZZZZZ	260CT06M 6	26-0CT-06
IPJ1836-01	4123-001-SA	260CT06M 7	26-0CT-06
IPJ1836-03	4123-003-SA	260CT06M 8	26-OCT-06
IPJ1836-02	4123-002-SA	260CT06M 9	26-0CT-06
Solvent Blank	SB102606M	260CT06M 10	26-0CT-06
1613 CS3 (061011J)	ST102606M2	260CT06M 11	26-0CT-06

ANALYST:

DATE: 10/37/04

5DFA - FORM V-HR CDD-1 CDD/CDF WINDOW DEFINING MIX (WDM) SUMMARY 1613 CS3 (061011J) HIGH RESOLUTION

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

SDG NO.:

GC COLUMN: DB5

ID: 0.25 (mm)

LAB FILE ID: 260CT06M Sam: 1

INSTRUMENT ID: FAL3

DATE ANALYZED: 26-OCT-06

TIME ANALYZED: 12:59:49

CDD)/CDF	RT FIRST	RT LAST
	ELUTING	ELUTING
TCDD	24:21	28:20
TCDF	22:59	28:33
PeCDD	30:15	33:48
PeCDF	28:24	34:14
HxCDD	36:08	39:11
HXCDF	35:14	39:45
HpCDD	42:47	44:10
HpCD F	42:16	45:05

5DFA - FORM V-HR CDD-1 CDD/CDF WINDOW DEFINING MIX (WDM) SUMMARY 1613 CS3 (061011J) HIGH RESOLUTION

SAMPLE No.

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.: TO NO.: SDG NO.:

GC COLUMN: DB5

ID: 0.25 (mm)

LAB FILE ID: 260CT06M Sam: 11

INSTRUMENT ID: FAL3

DATE ANALYZED: 26-OCT-06

TIME ANALYZED: 22:13:25

CDD/CDF	RT FIRST	RT LAST
	ELUTING	ELUTING
TCDD	24:21	28:20
TCDF	22:58	28:33
PeCDD	30:14	33:48
PeCDF	28:24	34:13
HXCDD	36:07	39:10
HXCDF	35:14	39:45
HpCDD	42:46	44:09
HpCDF	42:16	45:04

5DFB - FORM V-HR CDD-2 CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY HIGH RESOLUTION

SAMPLE No. 1613 CS3 (061011J)

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO .:

SDG NO.:

GC COLUMN: DB5

ID: 0.25 (mm)

LAB FILE ID: 260CT06M Sam: 1

INSTRUMENT ID: FAL3

DATE ANALYZED: 26-OCT-06

TIME ANALYZED: 12:59:49

Percent Valley determination for DB-5 (or equivalent) column-For the column performance solution beginning the 12-hour period:

1238-TCDD/2378-TCDD: <25%

QUALITY CONTROL (QC) LIMITS:

Percent Valley between the TCDD isomers must be less than or equal to 25%.

Percent Valley determination for DB-225 (or equivalent) column-For the column performance solution beginning the 12-hour period:

2347-TCDF/2378-TCDF: <25%

QC Limits:

Percent Valley between the TCDD/TCDF isomers must be less than or equal to 25%.

ANALYST:_____ DA

DATE: 10/27/06

5DFB - FORM V-HR CDD-2 CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY HIGH RESOLUTION

SAMPLE No. 1613 CS3 (061011J)

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

SDG NO.:

GC COLUMN: DB5

ID: 0.25 (mm)

LAB FILE ID: 260CT06M Sam: 11

INSTRUMENT ID: FAL3

DATE ANALYZED: 26-OCT-06

TIME ANALYZED: 22:13:25

Percent Valley determination for DB-5 (or equivalent) column-For the column performance solution beginning the 12-hour period:

1238-TCDD/2378-TCDD: <25%

QUALITY CONTROL (QC) LIMITS:

Percent Valley between the TCDD isomers must be less than or equal to 25%.

Percent Valley determination for DB-225 (or equivalent) column-For the column performance solution beginning the 12-hour period:

2347-TCDF/2378-TCDF: <25%

QC Limits:

Percent Valley between the TCDD/TCDF isomers must be less than or equal to 25%.

ANALYST:

DATE: 10/37/06

5DFC - FORM V-HR CDD-3 CDD/CDF ANALYTICAL SEQUENCE SUMMARY HIGH RESOLUTION

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

SDG NO.:

GC COLUMN: DB5

ID: 0.25 (mm)

INSTRUMENT ID: FAL3

INIT. CALIB. DATE (S): 24-OCT-06

INIT. CALIB. TIMES: 12:06:14, 13:01:38, 13:57:01, 11:10:51, 14:52:28, 15:47:52

THE ANALYTICAL SEQUENCE OF STANDARDS, SAMPLES, BLANKS, AND LABORATORY CONTROL SAMPLES (LCSs) IS AS FOLLOWS:

	the state of the s			
EPA SAMPLE			DATE	TIME
NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED	ANALYZED
1613 CS3 (061011J)	ST102606M1	260CT06M	26-0CT-06	12:59:49
OPR	0990-001-OPR	260CT06M	26-0CT-06	13:55:12
Method Blank	0990-001-MB	260CT06M	26-0CT-06	14:50:36
ZZZZZ	ZZZZZ	260CT06M	26-0CT-06	15:46:00
IPJ1685-01	4118-001-SA	260CT06M	26-0CT-06	16:41:22
ZZZZZ	ZZZZZ	260CT06M	26-0CT-06	17:36:42
IPJ1836-01	4123-001-SA	260CT06M	26-0CT-06	18:32:01
IPJ1836-03	4123-003-SA	260CT06M	26-0CT-06	19:27:17
IPJ1836-02	4123-002-SA	260CT06M	26-0CT-06	20:22:38
Solvent Blank	SB102606M	260CT06M	26-0CT-06	21:18:01
1613 CS3 (061011J)	ST102606M2	260CT06M	26-0CT-06	22:13:25

ANALYST:

DATE: 10/27/04

6DFA - FORM VI-HR CDD-1 CDD/CDF INITIAL CALIBRATION RESPONSE FACTOR SUMMARY HIGH RESOLUTION

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

(mm) .

SDG NO.:

GC COLUMN: DB5

ID: 0.25

INSTRUMENT ID: FAL3

INIT. CALIB. DATE(S): 24-OCT-06

24-OCT-06

24-0CT-06 24-0CT-06

-OCT-06 24-OCT-06

24-OCT-06

INIT. CALIB. TIMES:

12:06:14

13:01:38

13:57:01

11:10:51

14:52:28

15:47:52

				RR/RRF			MEAN RR/RRF	%RSD	QC LIMITS
TARGET ANALYTES	CS0	CS1	CS2	cs3	CS4	CS5	_		
2,3,7,8-TCDD	1.23	1.14	1.13	1.23	1.21	1.21	1.19	3.65	+/-20%
2,3,7,8-TCDF	0.96	0.89	0.96	0.98	1.02	1.02	0.97	5.09	+/-20%
1,2,3,7,8-PeCDF	0.76	0.75	0.81	0.86	0.88	0.86	0.82	6.38	+/-20%
.1,2,3,7,8-PeCDD	0.66	0.63	0.68	0.71	0.74	0.74	0.69	6.56	+/-20%
2,3,4,7,8-PeCDF	0.73	0.71	0.77	0.80	0.83	0.82	0.78	6.31	+/-20%
1,2,3,4,7,8-HxCDF	0.89	0.87	0.88	0.92	0.94	0.90	0.90	2.75	+/-20%
1,2,3,6,7,8-HxCDF	0.98	0.95	1.00	1.06	1.08	1.04	1.02	5.08	+/-20%
1,2,3,4,7,8-HxCDD	0.91	0.90	0.92	0.98	0.98	0.96	0.94	3.98	+/-20%
1,2,3,6,7,8-HxCDD	0.79	0.77	0.79	0.84	0.86	0.82	0.81	4.05	+/-20%
	0.72	0.70	0.73	0.78	0.77	. 0.75	0.74	4.12	+/-20%
2,3,4,6,7,8-HxCDF	0.94	0.92	0.95	0.98	1.02	0.99	0.97	3.93	+/-20%
1,2,3,7,8,9-HxCDF	0.89	0.84	0.86	0.92	0.95	0.90	0.89	4.67	+/-20%
1,2,3,4,6,7,8-HpCDF	0.96	0.94	0.98	1.02	1.05	1.01	0.99	4.05	+/-20%
1,2,3,4,6,7,8-HpCDD	0.86	0.83	0.87	0.93	0.94	0.92	0.89	4.84	+/-20%
1,2,3,4,7,8,9-HpCDF	0.95	0.91	0.97	1.01	1.05	1.00	0.98	4.99	+/-20%
OCDD	1.01	0.95	0.99	1.07	1.09	1.07	1.03	5.47	+/-20%
OCDF	0.84	0.77	0.83	0.87	0.89	0.86	0.84	4.79	+/-20%
LABELED COMPOUNDS									
13c-2,3,7,8-TCDD	0.94	0.93	0.94	0.95	0.95	0.99	0.95	2.07	+/-35%
13C-1,2,3,7,8-PeCDD	1.10	1.04	1.03	1.04	1.09	1.06	1.06	2.73	+/-35%
	1.10	1.02	1.04	1.06	1.03	1.06	1.05	2.76	+/-35%
13C-1,2,3,6,7,8-HxCDD	1.02	0.98	1.02	1.02	0.96	0.97	1.00	2.78	+/-35%
13C-1,2,3,4,6,7,8-HpCDD		0.79	0.85	0.83	0.77	0.83	0.82	4.24	+/-35%
13C-OCDD	0.71	0.65	0.72	0.68	0.60	0.72	0.68	7.10	+/-35%
13C-2,3,7,8-TCDF	0.97	0.98	1.00	0.98	0.97	1.01	0.98	1.83	+/-35%
13C-1,2,3,7,8-PeCDF	0.85	0.82	0.81	0.83	0.82	0.86	0.83	2.33	+/-35%
13C-2,3,4,7,8-PeCDF	0.99	0.95	0.95	0.95	1.00	0.99	0.97	2.37	+/-35%
13C-1,2,3,4,7,8-HxCDF	1.38	1.31	1.28	1.32	1.22	1.19	1.28	5.52	+/-35%
13C-1,2,3,6,7,8-HxCDF	1.38	1.31	1.29	1.34	1.24	1.17	1.29	5.83	-
13C-1,2,3,7,8,9-HxCDF	1.34	1.24	1.24	1.27	1.26	1.25	1.27	2.90	+/-35%
13C-2,3,4,6,7,8-HxCDF	1.20	1.14							+/-35%
13C-1,2,3,4,6,7,8-HpCDF		1.03	1.12 1.05	1.16 1.10	1.09	1.04	1.12	5.08	+/-35%
13C-1,2,3,4,7,8,9-HpCDF		0.90		0.95	1.00	1.03	1.06	4.96	+/-35%
13C-0CDF	1.01		0.96		0.90	0.95	0.94	4.48	+/-35%
		0.91	1.00	0.94	0.84	0.99	0.95	7.07	+/-35%
37Cl-2,3,7,8-TCDD	0.60	0.60	0.66	0.65	0.69	0.72	0.65	6.90	+/-35%

⁽¹⁾ The Relative Response (RR) is calculated based on the labeled analogs of the other two HxCDDs.

Analyst:

Date: 10/27/06

6DFB - FORM VI-HR CDD-2 CDD/CDF INITIAL CALIBRATION ION ABUNDANCE RATIO SUMMARY HIGH RESOLUTION

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

SDG NO.:

GC COLUMN: DB5

ID: 0.25

INSTRUMENT ID: FAL3

INIT. CALIB. DATE(S): 24-OCT-06

24-0CT-06

24-0CT-06

24-0CT-06

INIT. CALIB. TIMES:

12:06:14

13:01:38

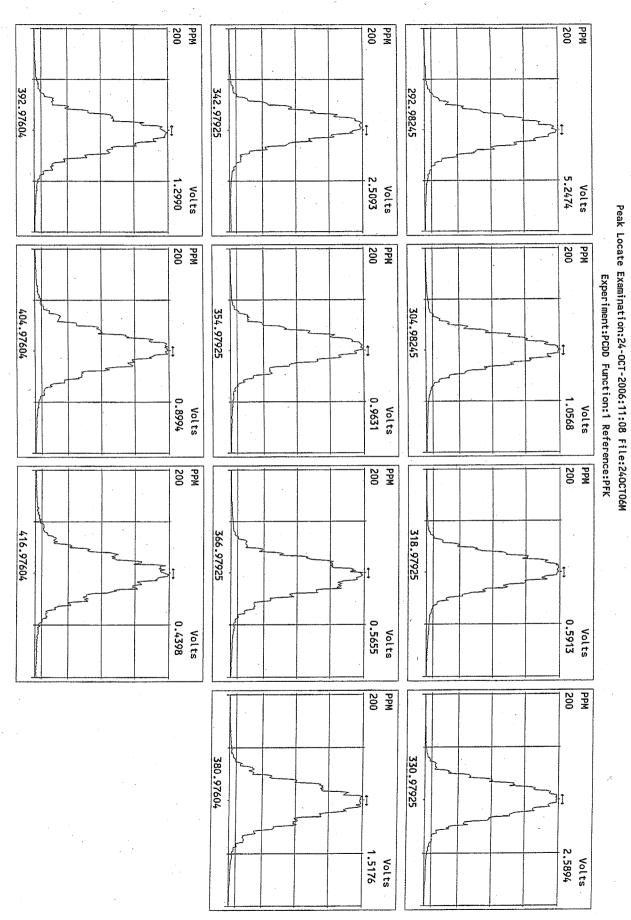
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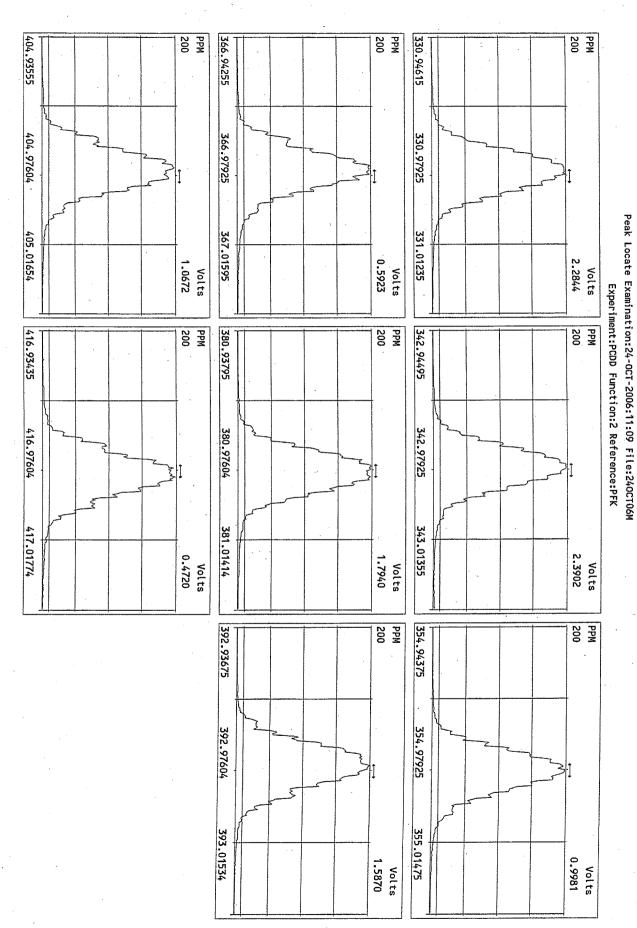
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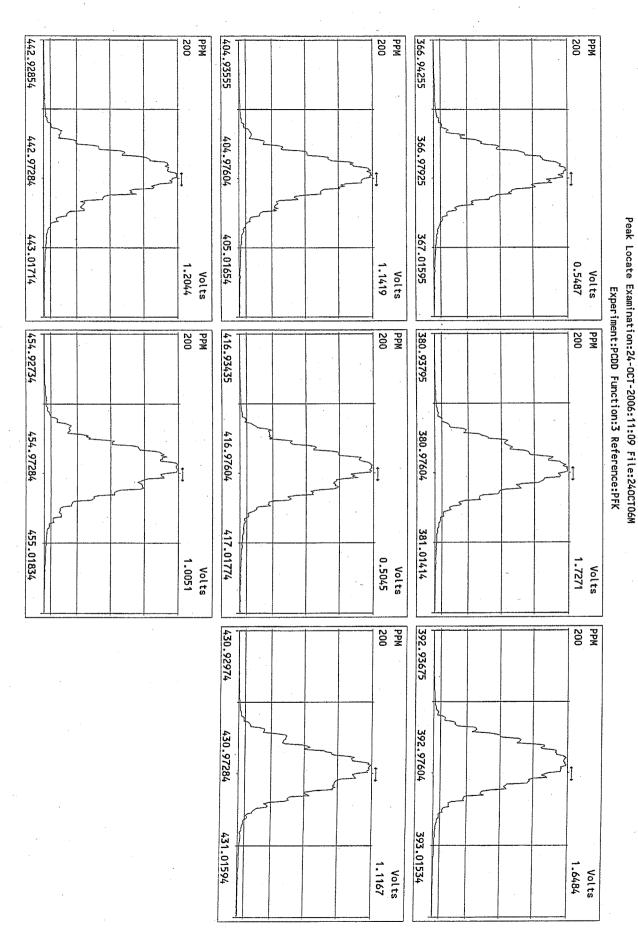
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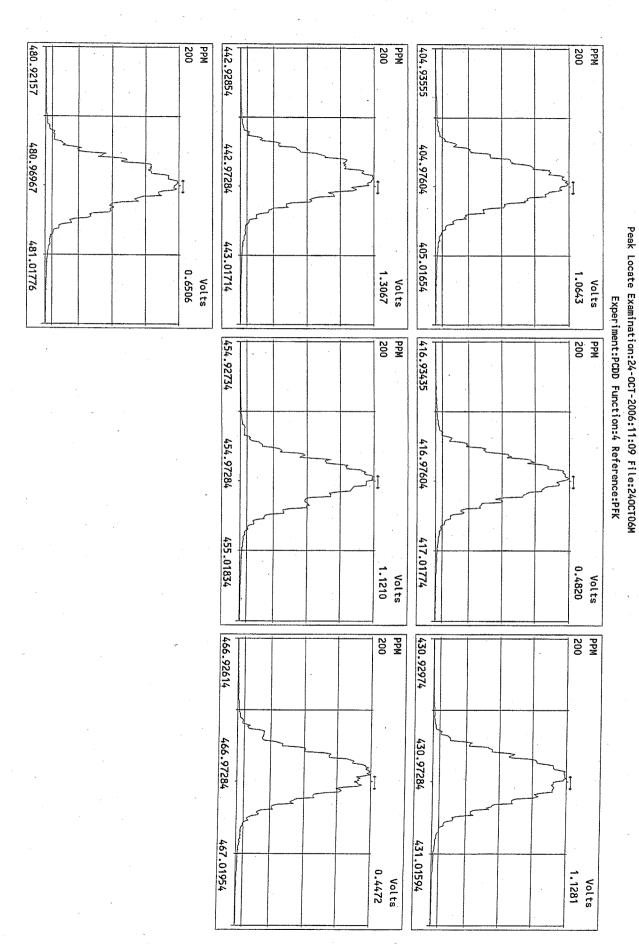
		ION ABUNDANCE RATIO							ION RATIO
	SELECTED							FLAG	QC LIMITS
TARGET ANALYTES	IONS	CS0	CS1	CS2	CS3	CS4	CS5		
2,3,7,8-TCDD	320/322	0.84	0.75	0.78	0.77	0.78	0.79		0.65-0.89
2,3,7,8-TCDF	304/306	0.70	0.78	0.78	0.78	0.78	0.78		0.65-0.89
1,2,3,7,8-PeCDF	340/342	1.59	1.60	1.57	1.58	1.57	1.57	100	1.32-1.78
1,2,3,7,8-PeCDD	356/358	1.57	1.53	1.59	1.59	1.59	1.57		1.32-1.78
2,3,4,7,8-PeCDF	340/342	1.61	1.55	1.58	1.57	1.57	1.55		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	1.24	1.29	1.27	1.27	1.25	1.25		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	1.30	1.22	1.25	1.23	1.25	1.25		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	1.33	1.23	1.24	1.26	1.28	1.25		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	1.26	1.33	1.27	1.27	1.23	1.25		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	1.26	1.26	1.23	1.27	1.26	1.25		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	1.25	1.28	1.22	1.26	1.25	1.25		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	1.25	1.26	1.24	1.27	1.26	1.23		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.08	1.04	1.05	1.04	1.04	1.04		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	1.10	1.06	1.06	1.05	1.03	1.05		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	1.06	1.04	1.03	1.04	1.04	1.04		0.88-1.20
OCDD	458/460	0.90	0.89	0.90	0.87	0.89	0.89		0.76-1.02
OCDF	442/444	0.90	0.88	0.90	0.92	0.90	0.90		0.76-1.02
LABELED COMPOUNDS									
13C-2,3,7,8-TCDD	332/334	0.78	0.79	0.78	0.78	0.79	0.78		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	1.59	1.57	1.58	1.57	1.58	1.59		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	1.27	1.27	1.27	1.27	1.28	1.27		1.05-1.43
13C-1,2,3,6,7,8-HXCDD	402/404	1.26	1.29	1.26	1.28	1.27	1.26		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	436/438	1.05	1.06	1.04	1.06	1.04	1.05		0.88-1.20
13C-OCDD	470/472	0.90	0.90	0.88	0.89	0.89	0.89		0.76-1.02
13C-2,3,7,8-TCDF	316/318	0.80	0.80	0.80	0.79	0.79	0.79		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.58	1.58	1.58	1.57	1.57	1.58		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.57	1.56	1.59	1.58	1.58	1.57		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/386	0.52	0.52	0.52	0.52	0.53	0.52		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	0.52	0.52	0.52	0.52	0.52	0.53		0.43-0.59
13c-1,2,3,7,8,9-HxCDF	384/386	0.52	0.52	0.52	0.52	0.52	0.52		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	0.53	0.53	0.52	0.52	0.52	0.53		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	0.44	0.44	0.44	0.43	0.44	0.45		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.44	0.44	0.43	0.44	0.44	0.44		0.37-0.51
13C-OCDF	454/456	0.89	0.88	0.89	0.89	0.89	0.90		0.76-1.02
130-0001	454/450	0.07	0.00	0.07	0.89	0.07	0.70		0.75 1.02
INTERNAL STANDARDS	770 /** ·					0.00	0.00		0 /5 0 00
13C-1,2,3,4-TCDD	332/334	0.80	0.80	0.81	0.79	0.80	0.80		0.65-0.89
13C-1,2,3,4-TCDF	316/318	0.79	0.80	0.79	0.80	0.80	0.80		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	1.26	1.29	1.23	1.26	1.25	1.27		1.05-1.43

Quality Control (QC) limits represent +/-15% window around the theoretical ion abundance ratio. The laboratory must flag any analyte in any calibration solution which does not meet the ion abundance ratio QC limit by placing an asterik in the flag column

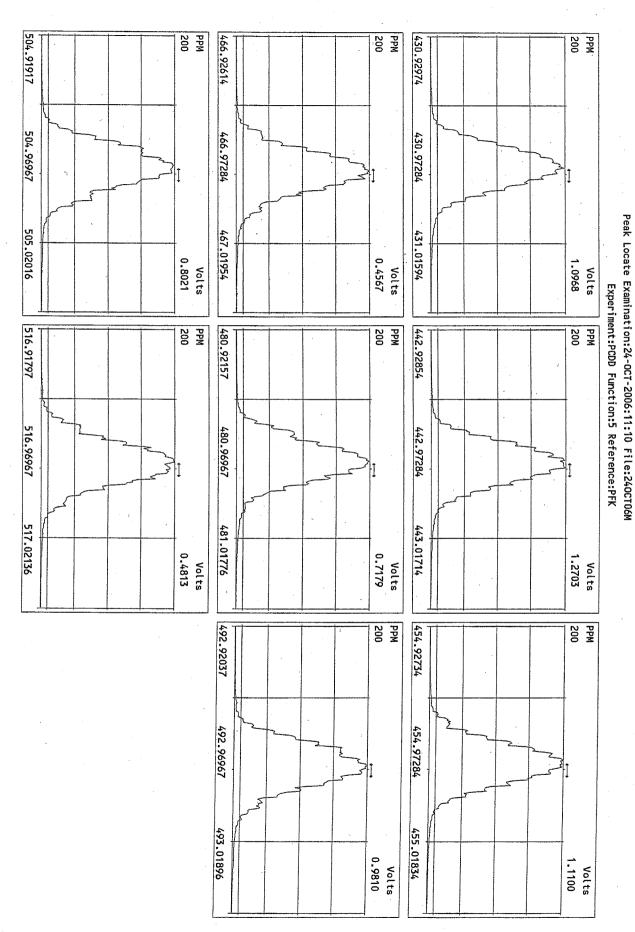




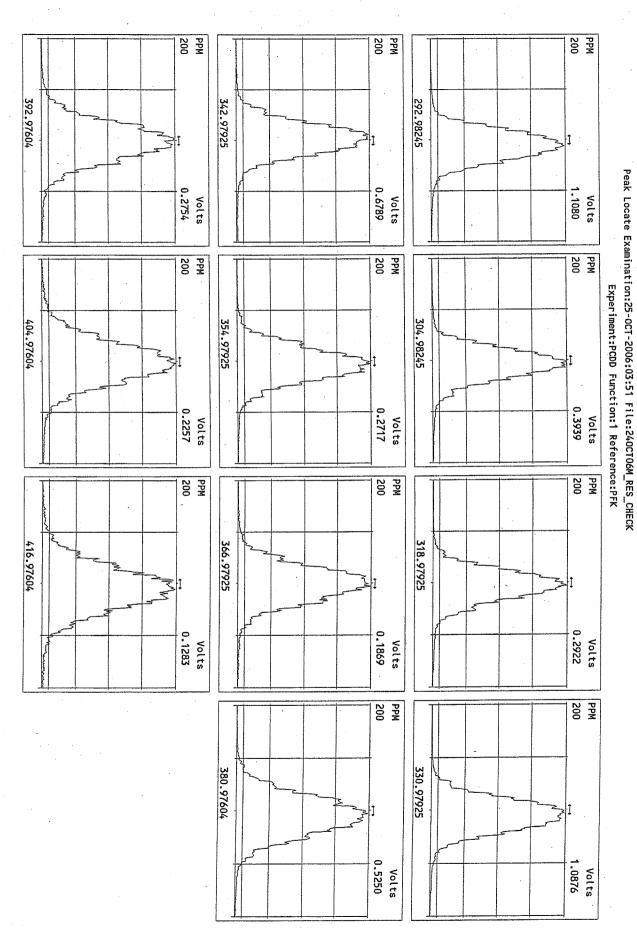




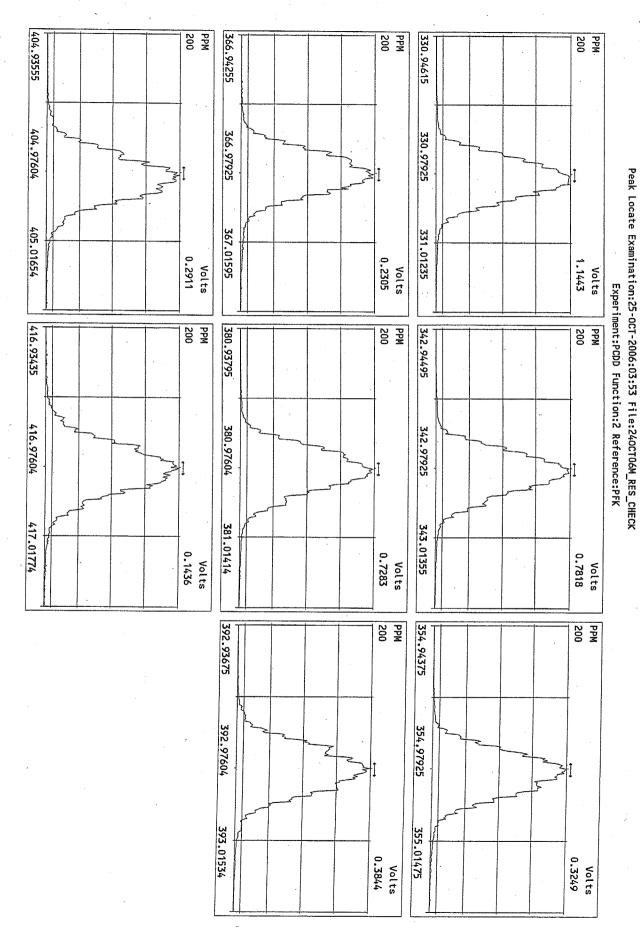
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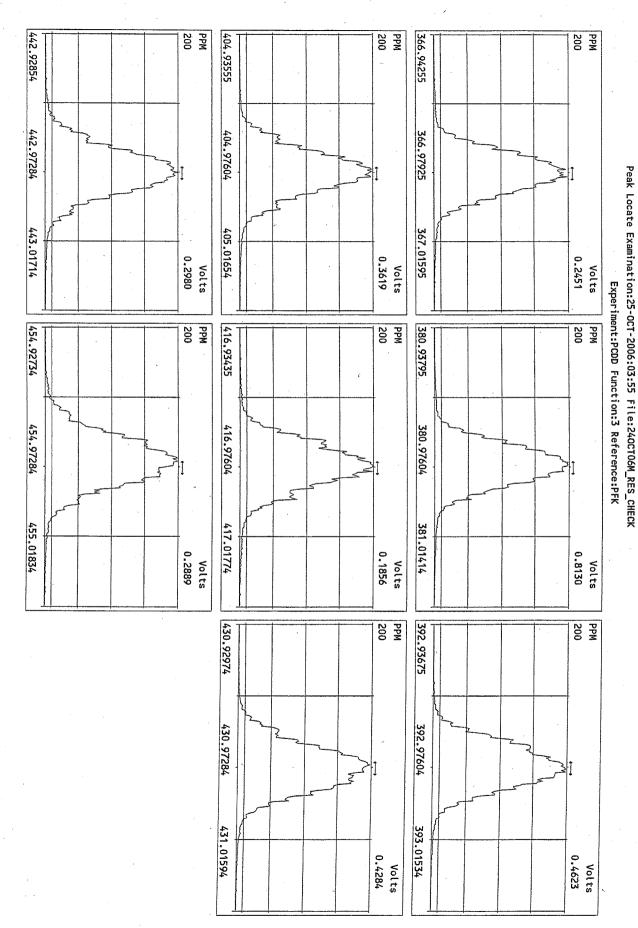
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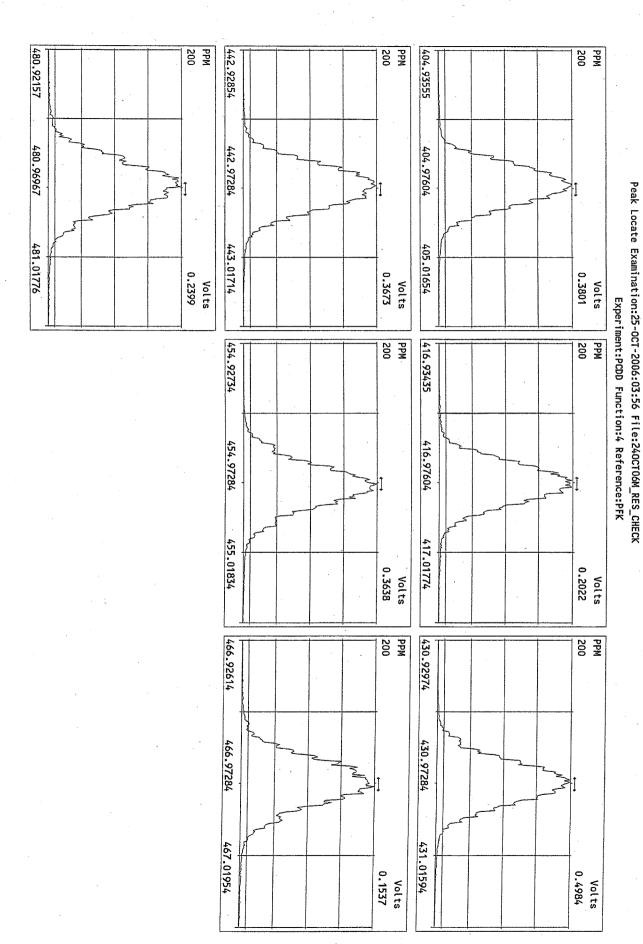


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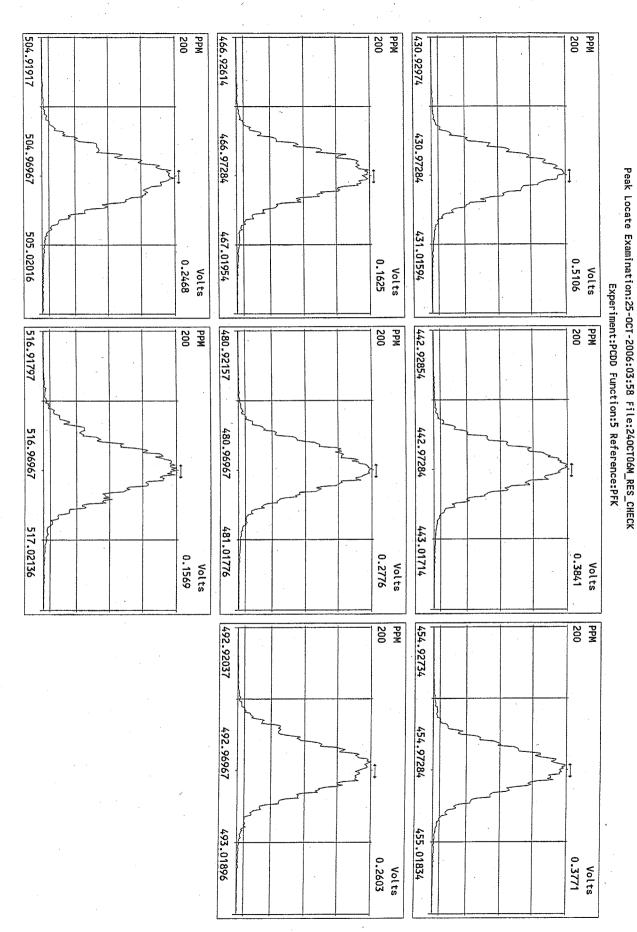


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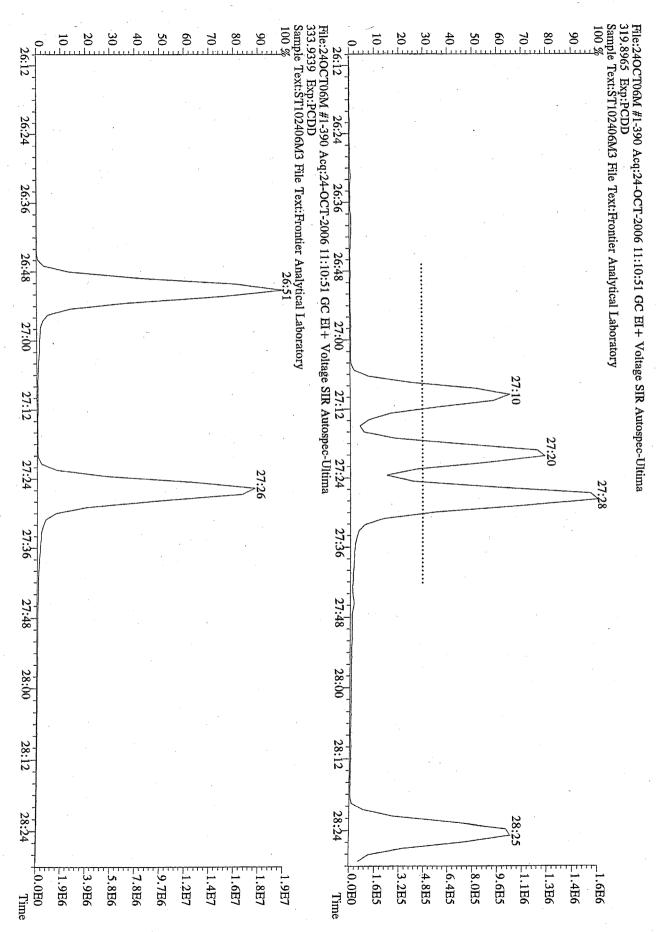


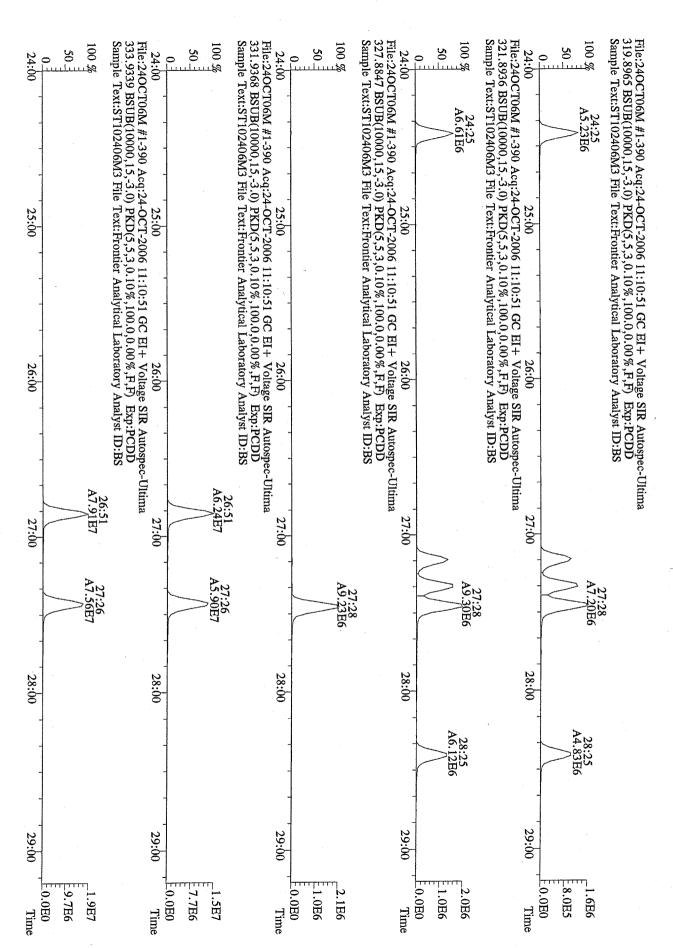


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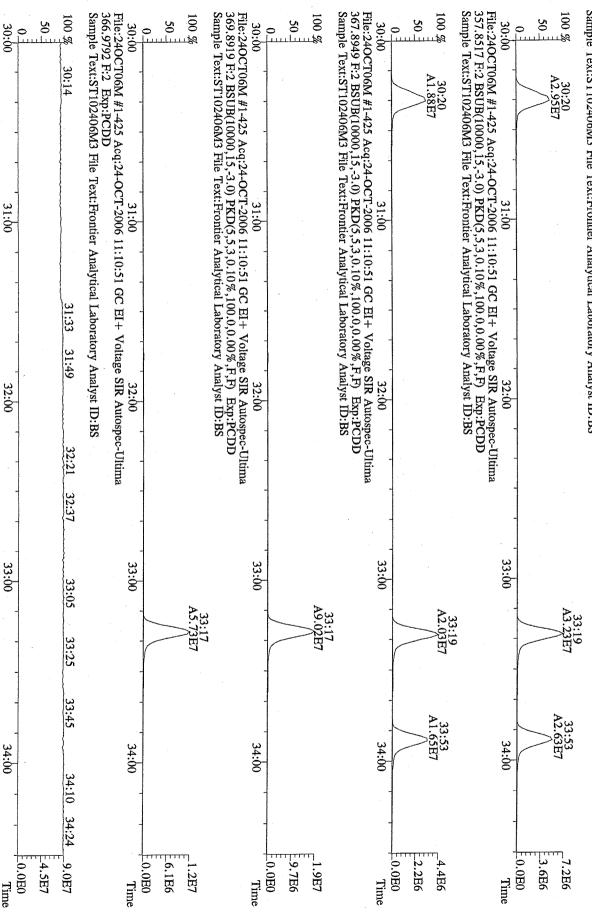


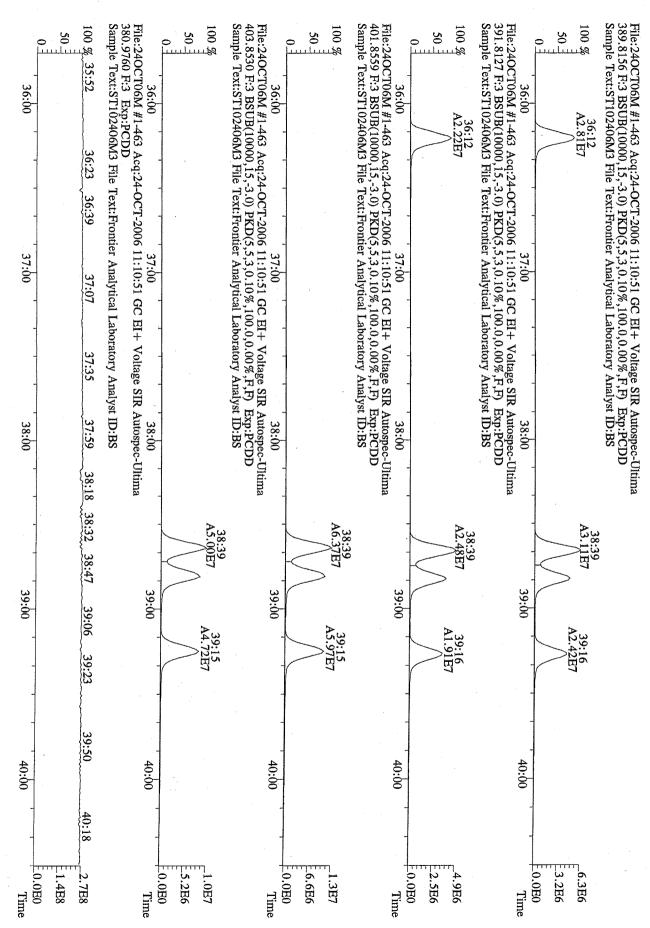
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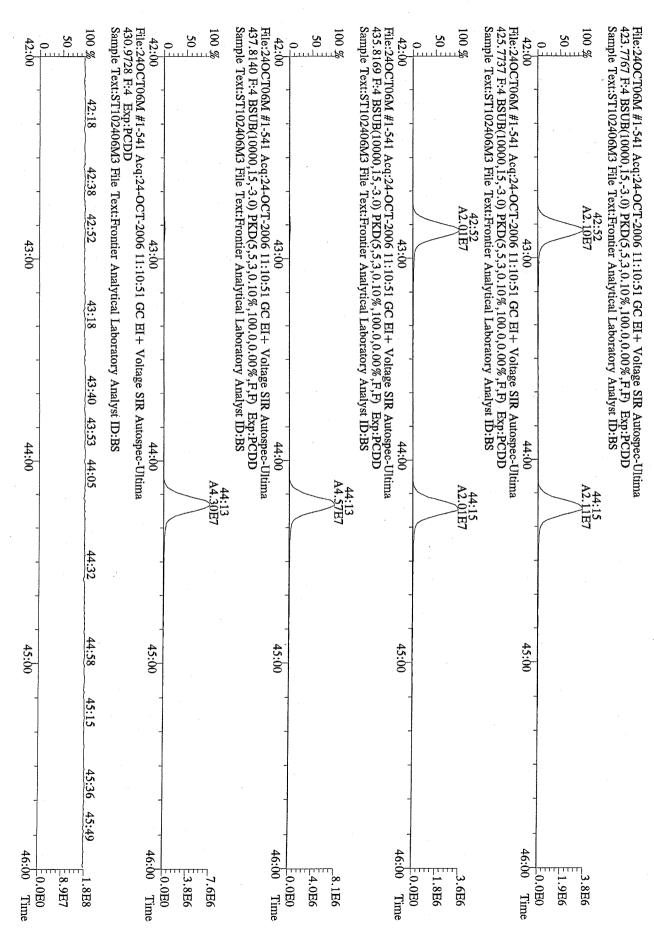


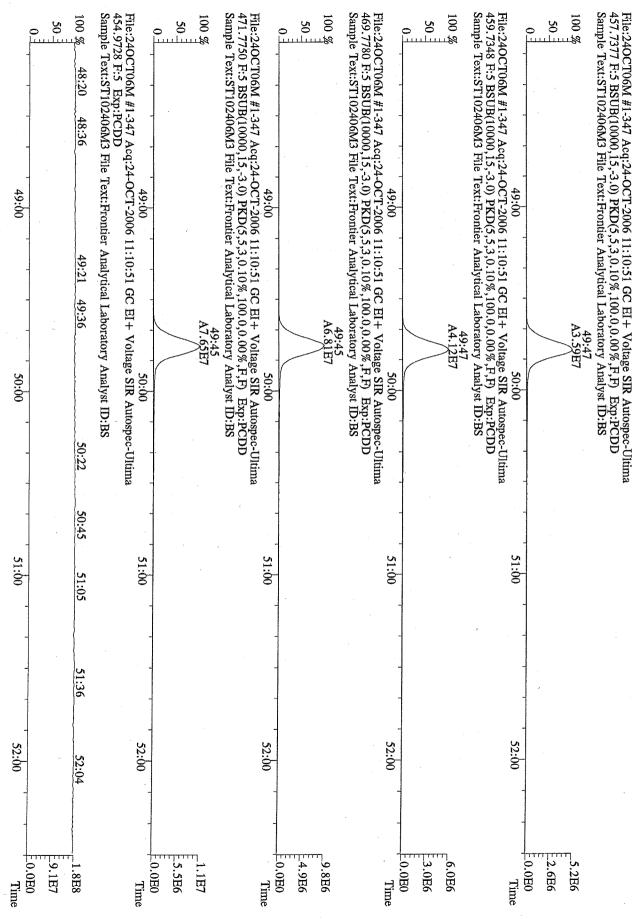


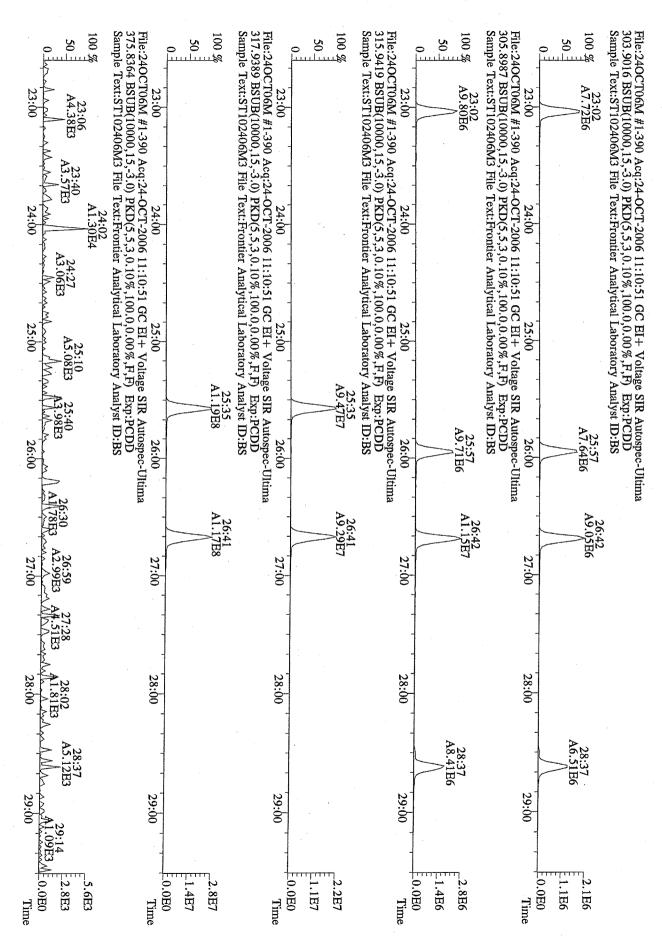
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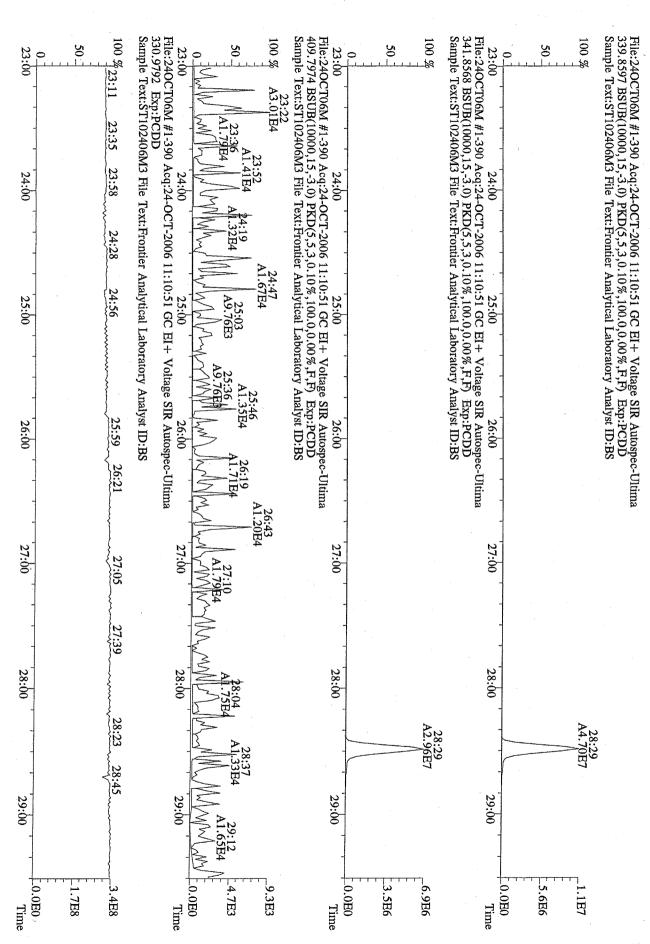


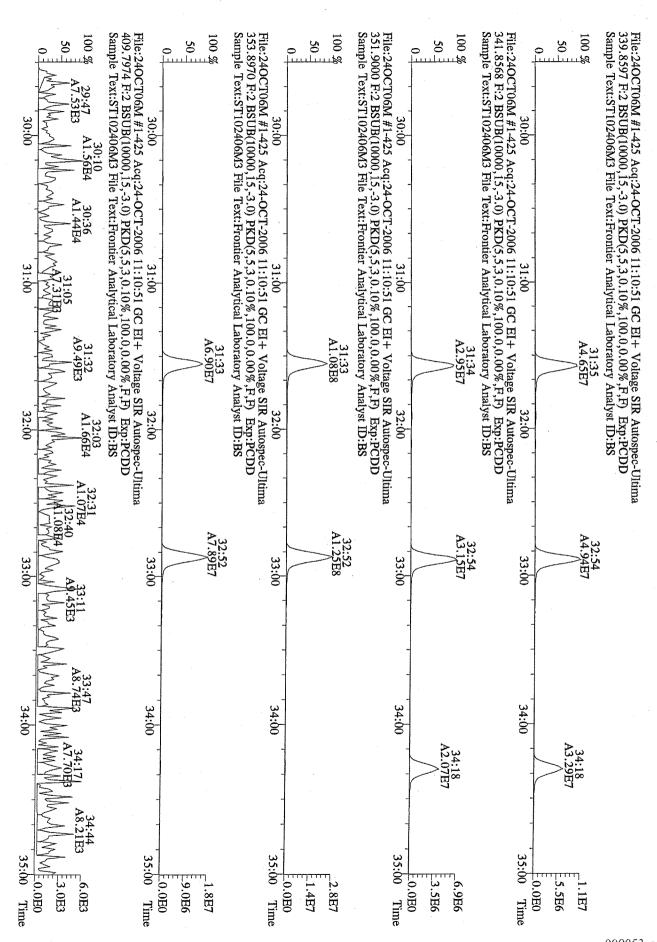


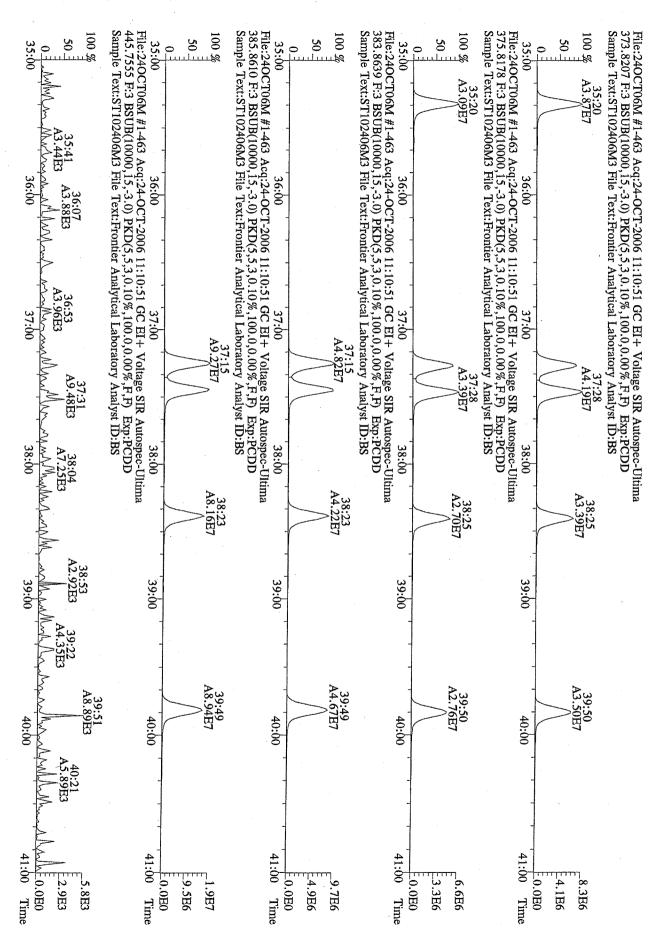


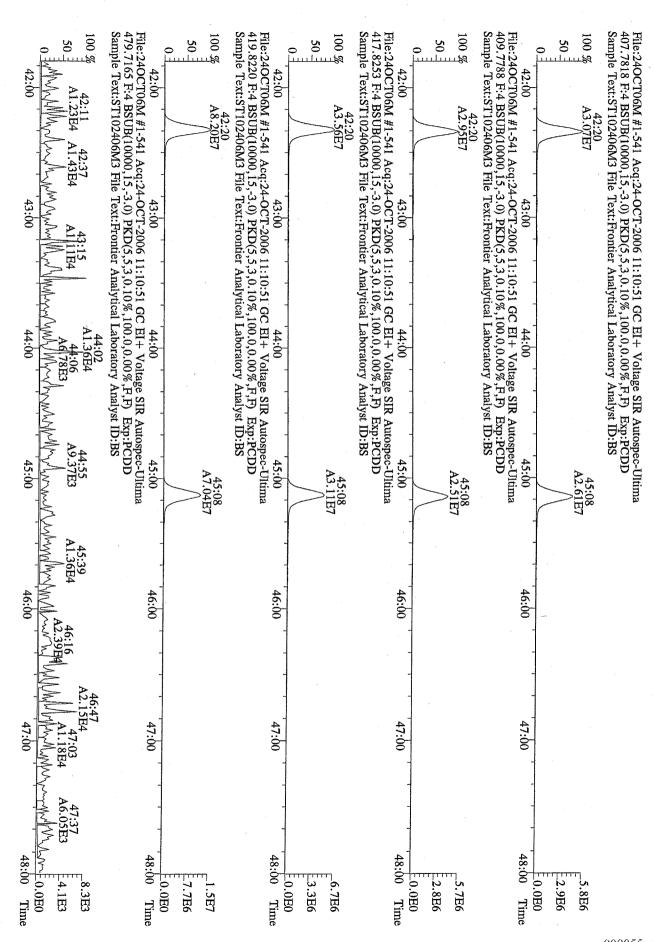


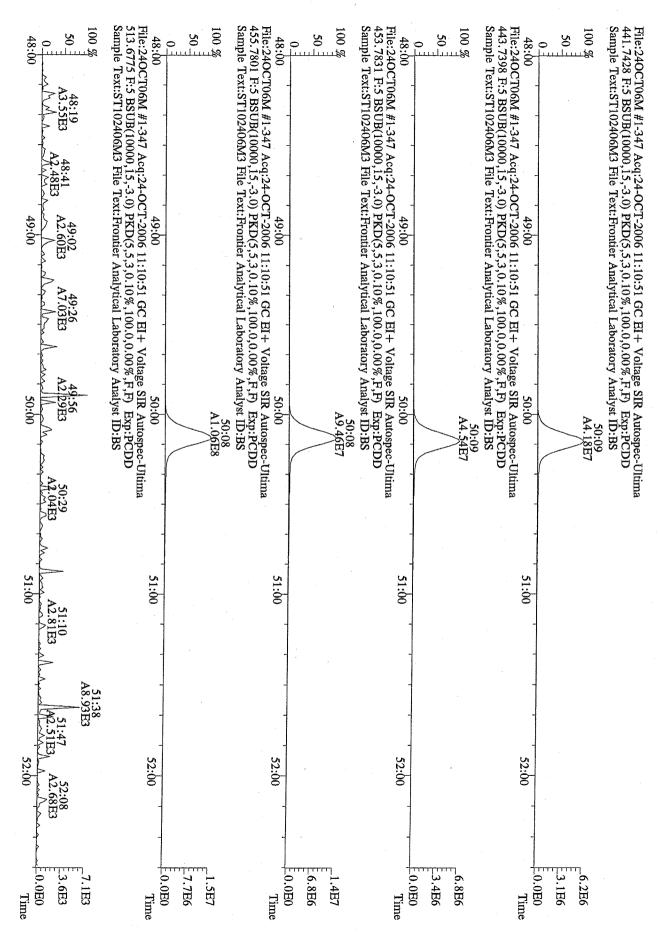


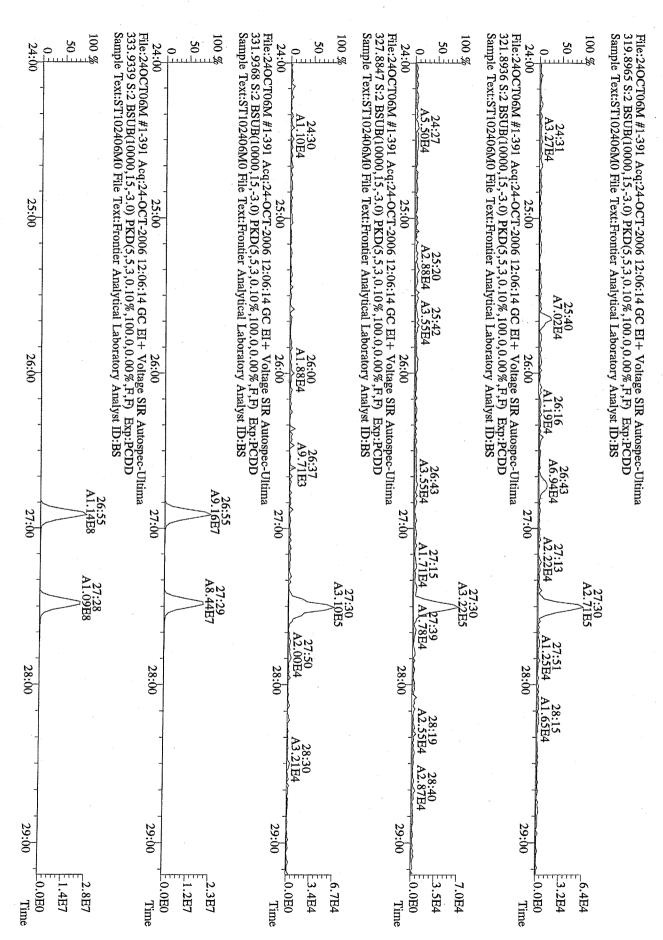


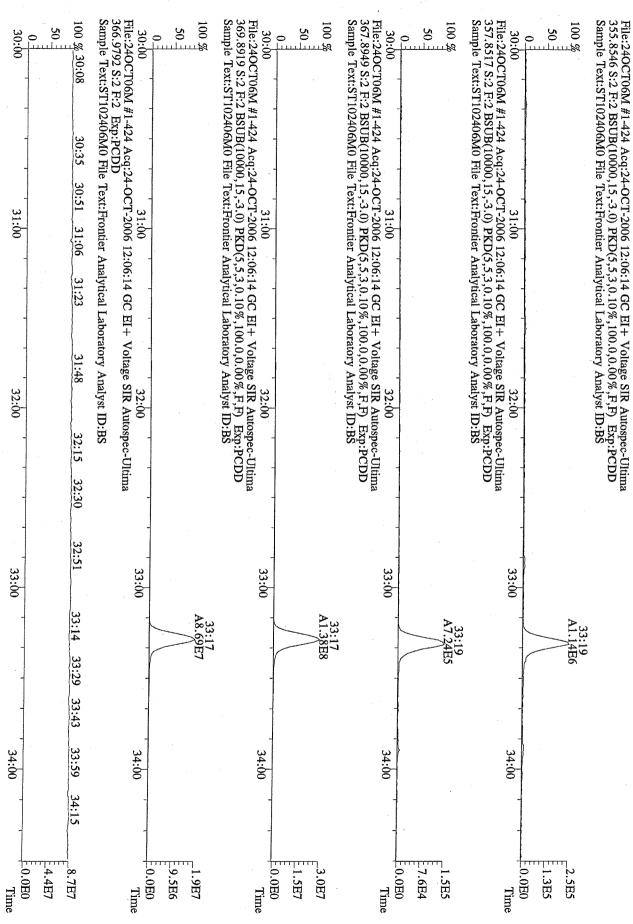


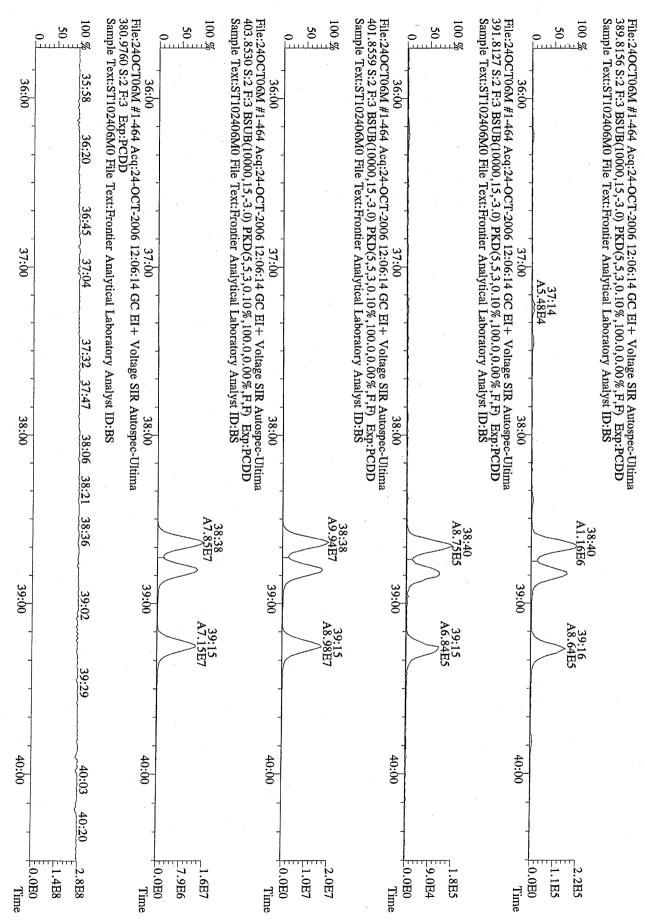


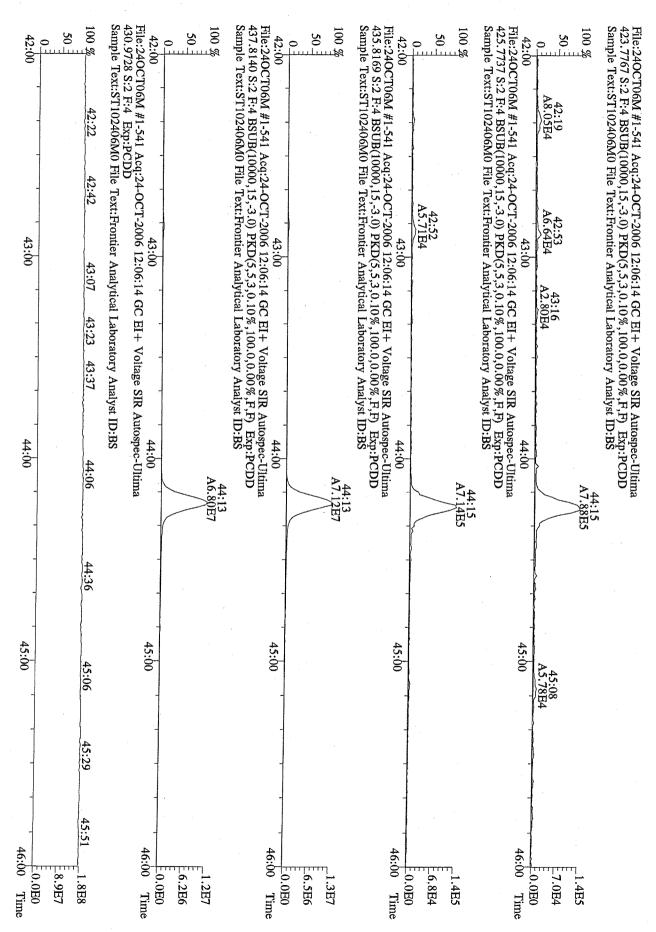


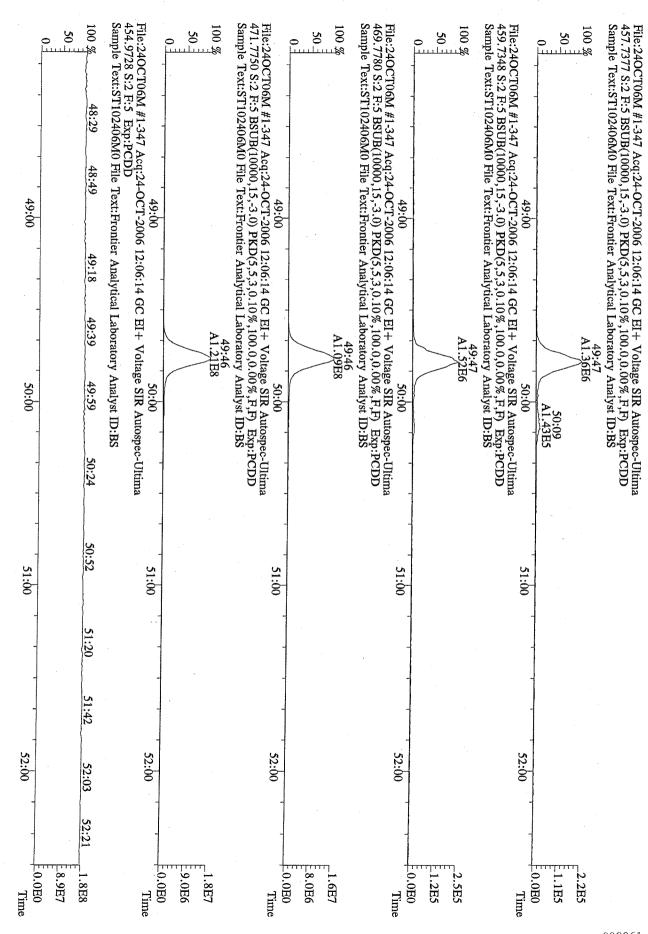


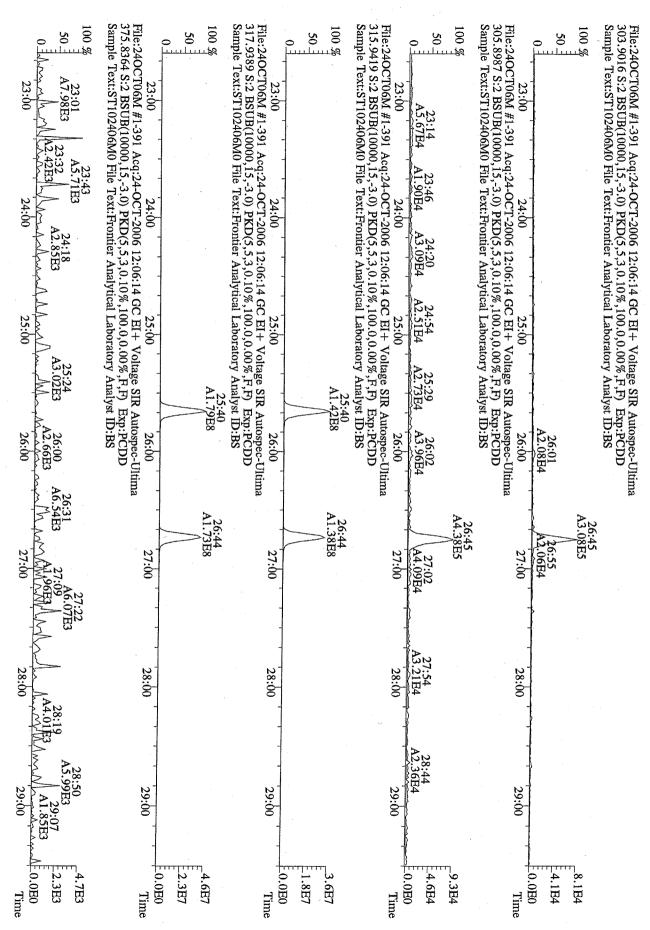




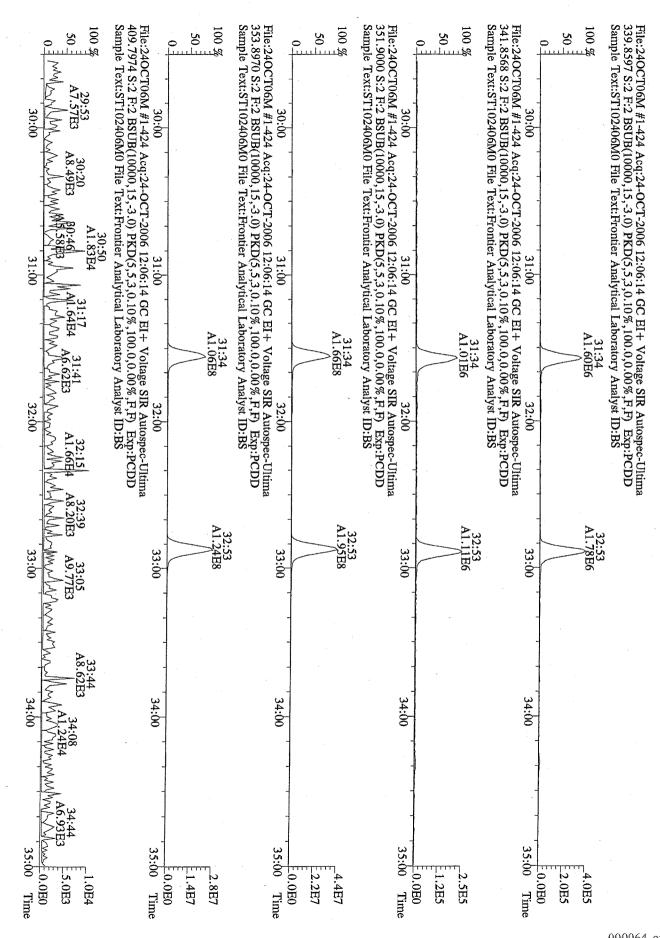


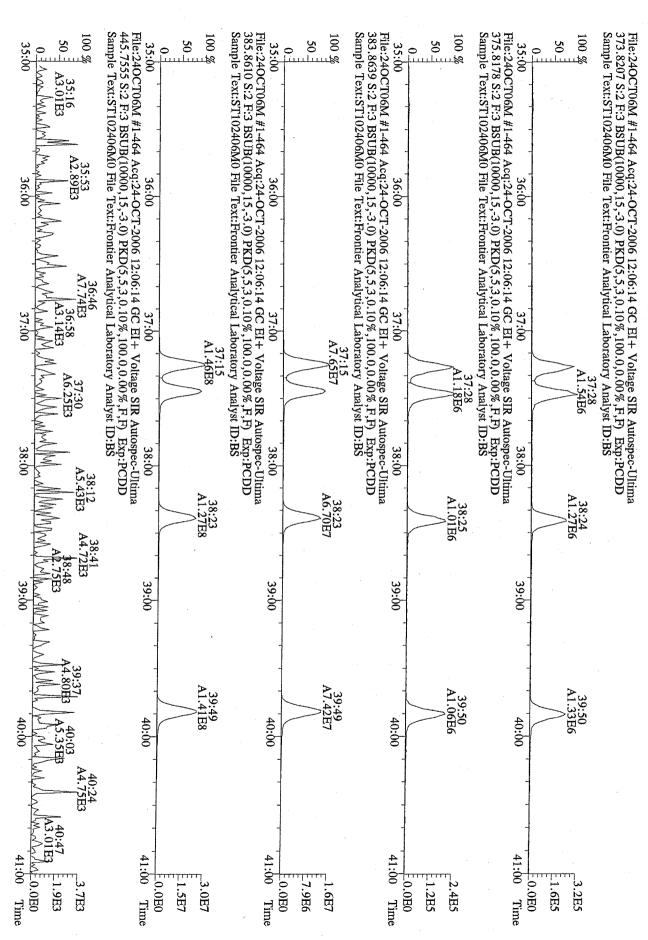


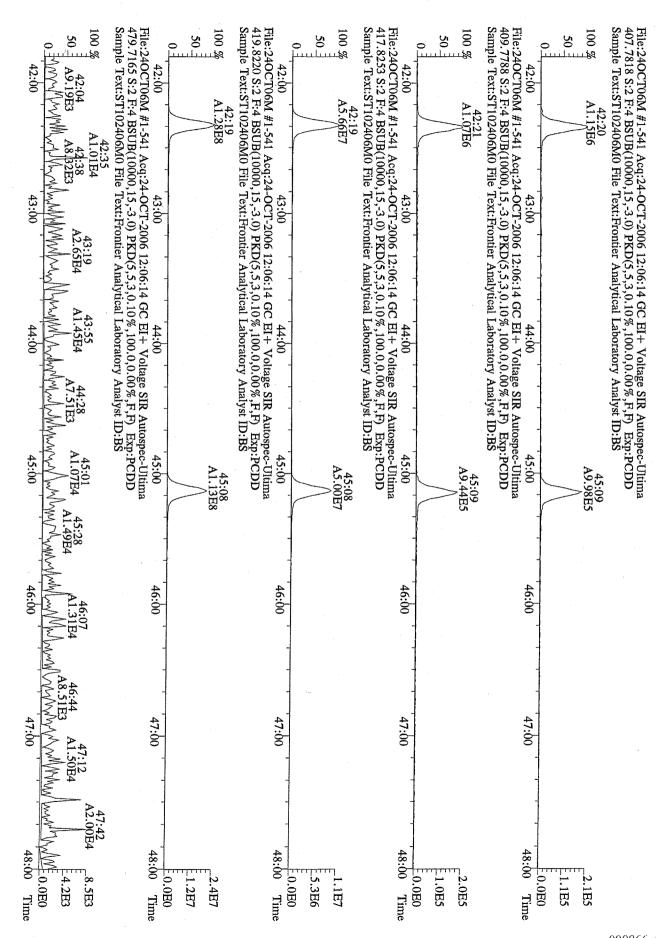


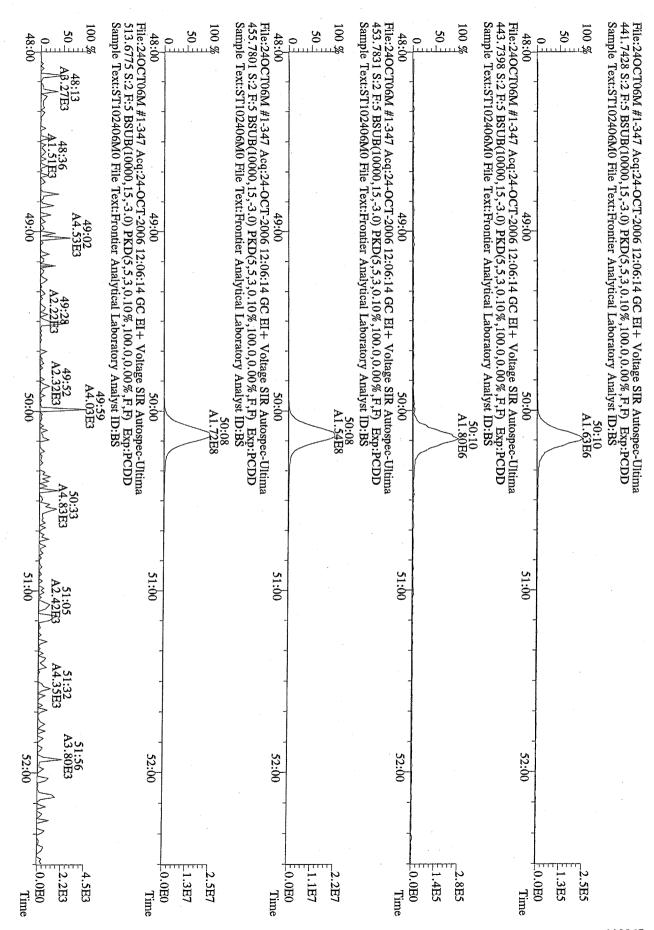


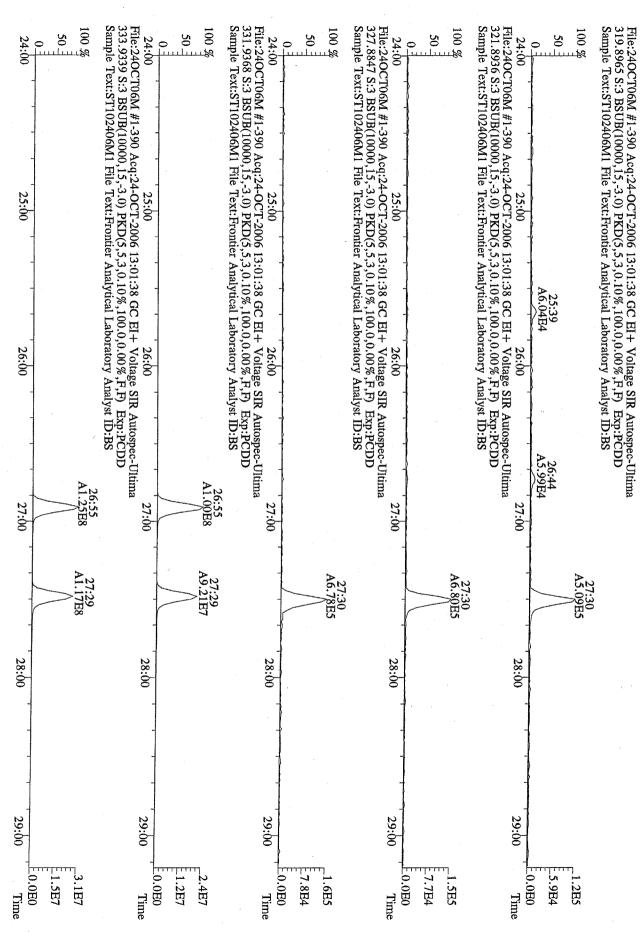
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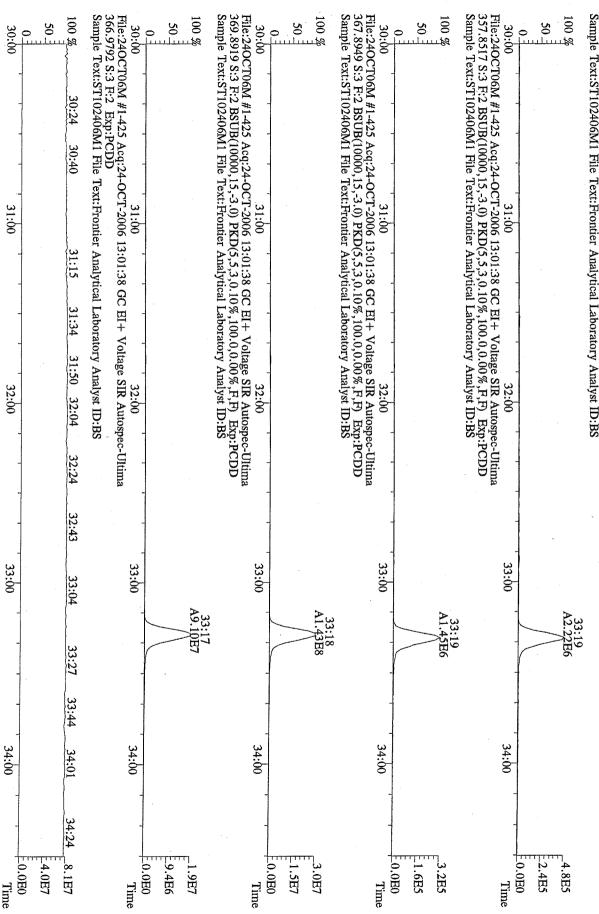


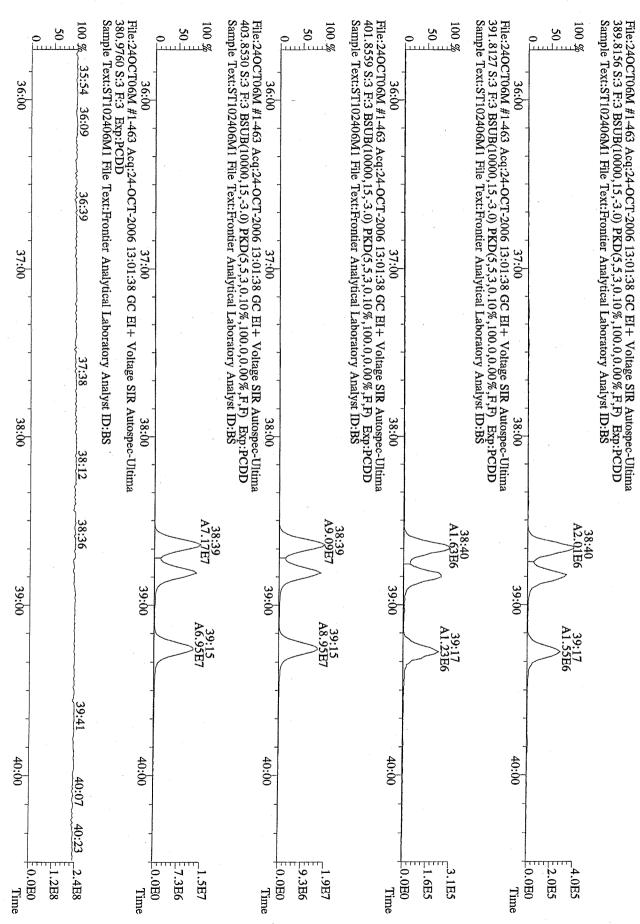


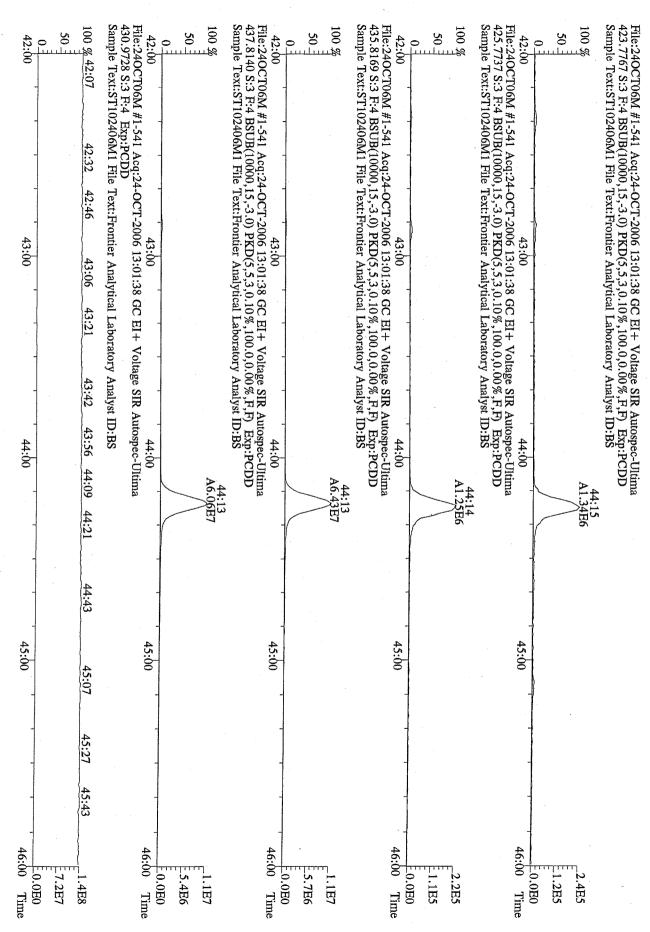


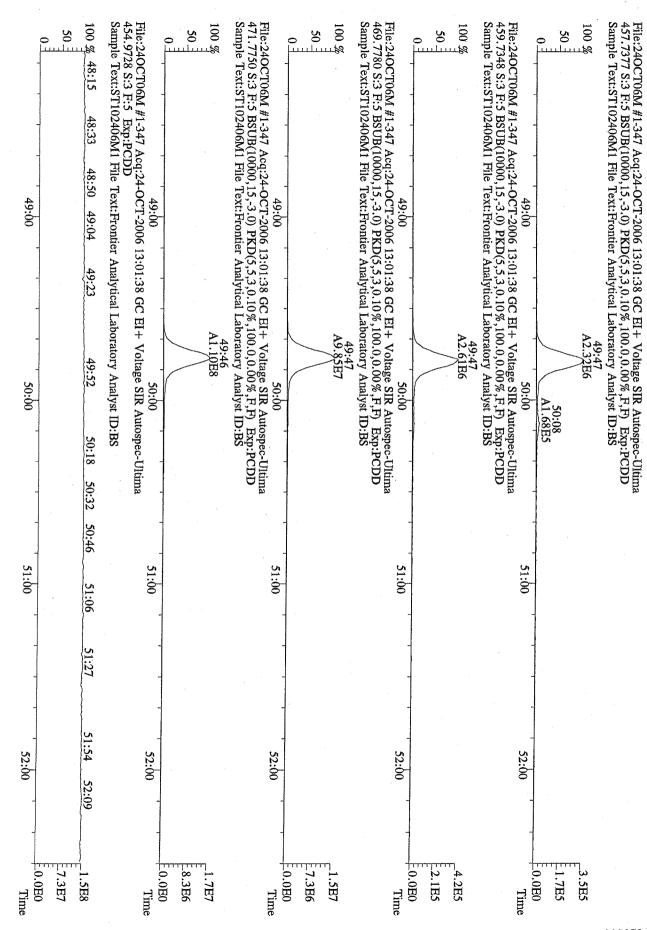


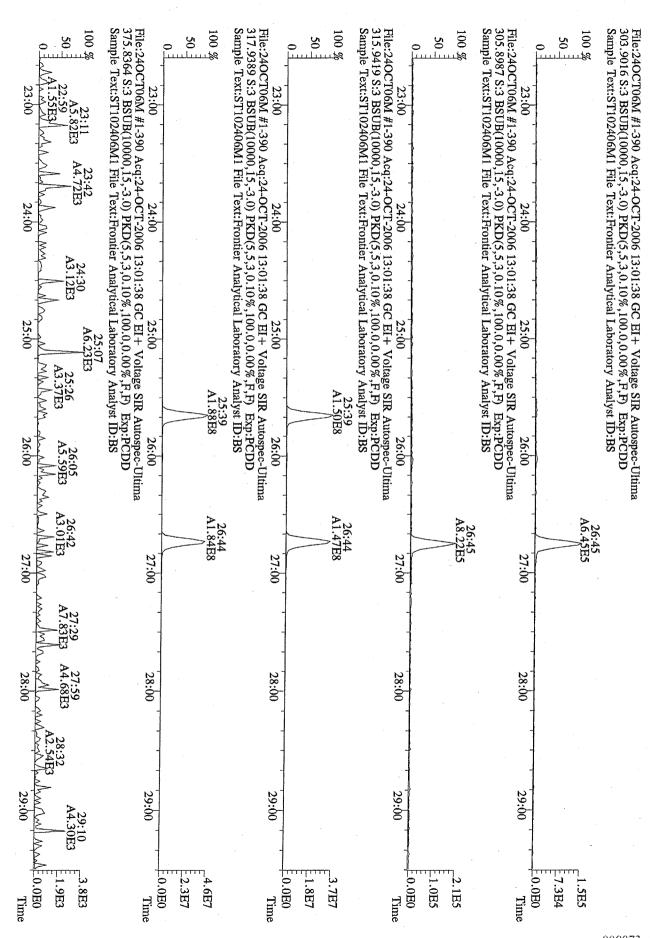
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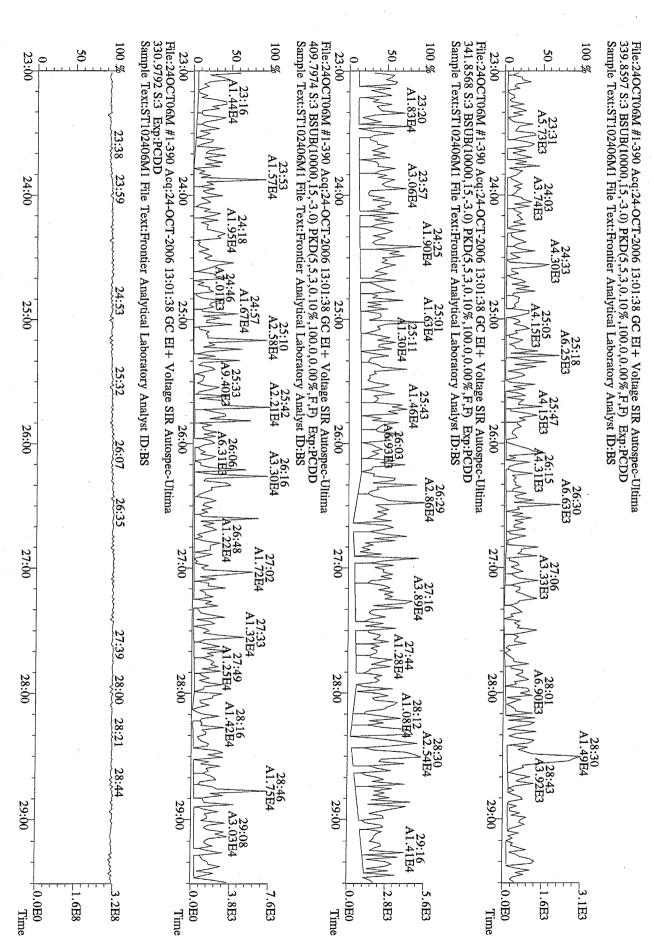


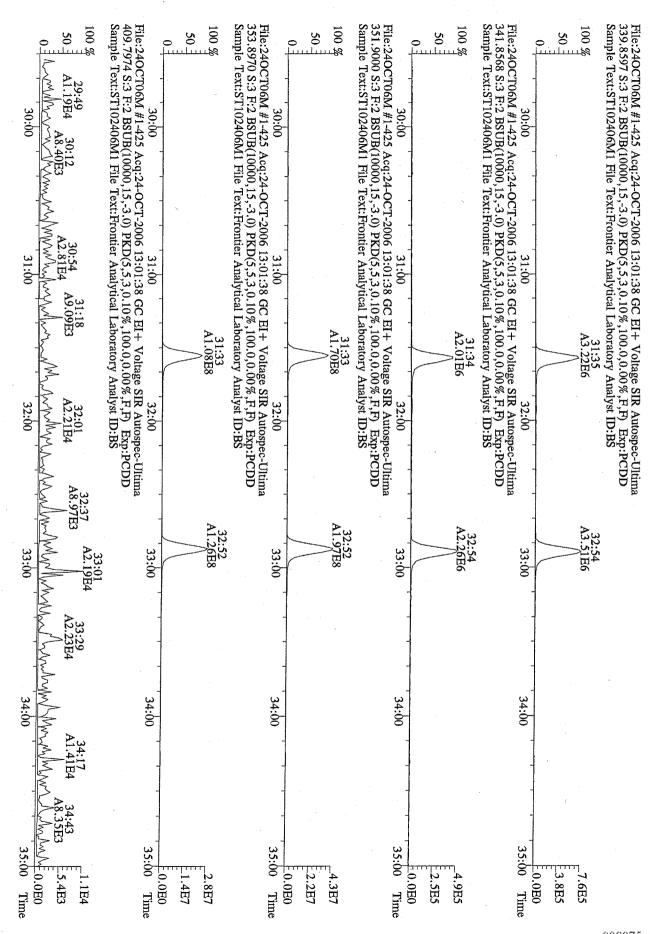


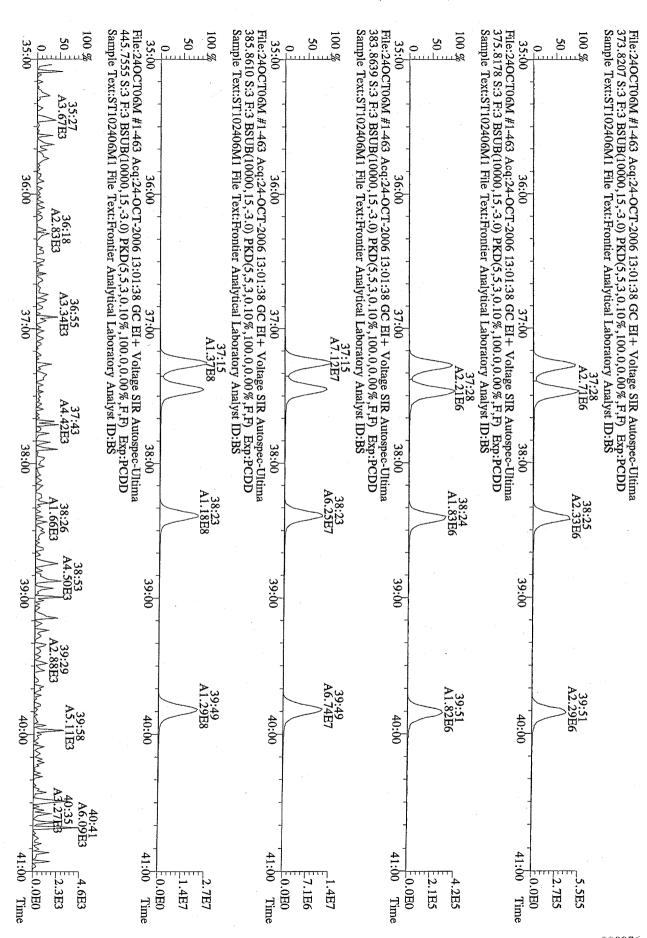


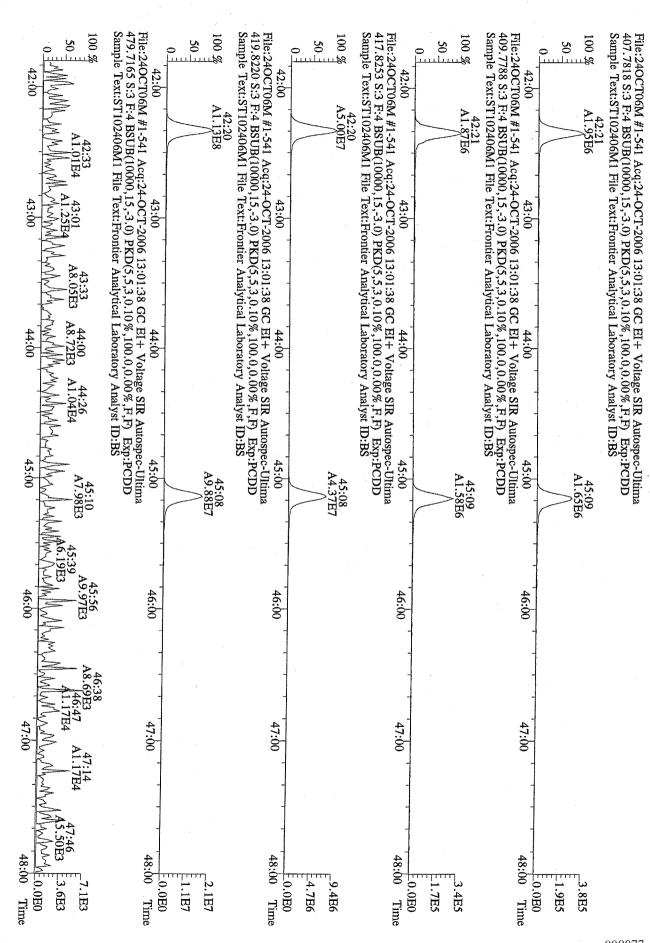


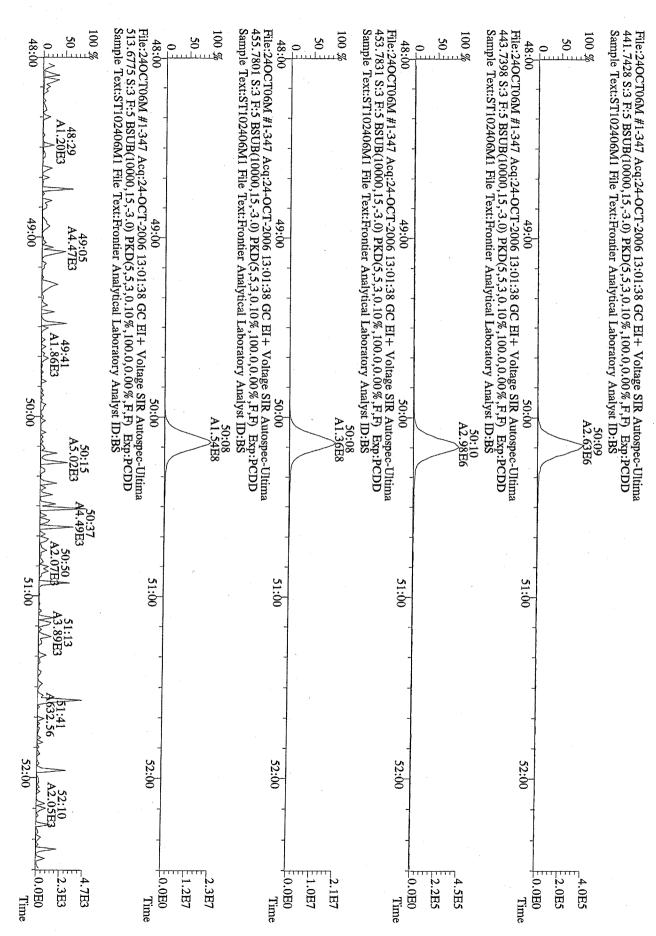


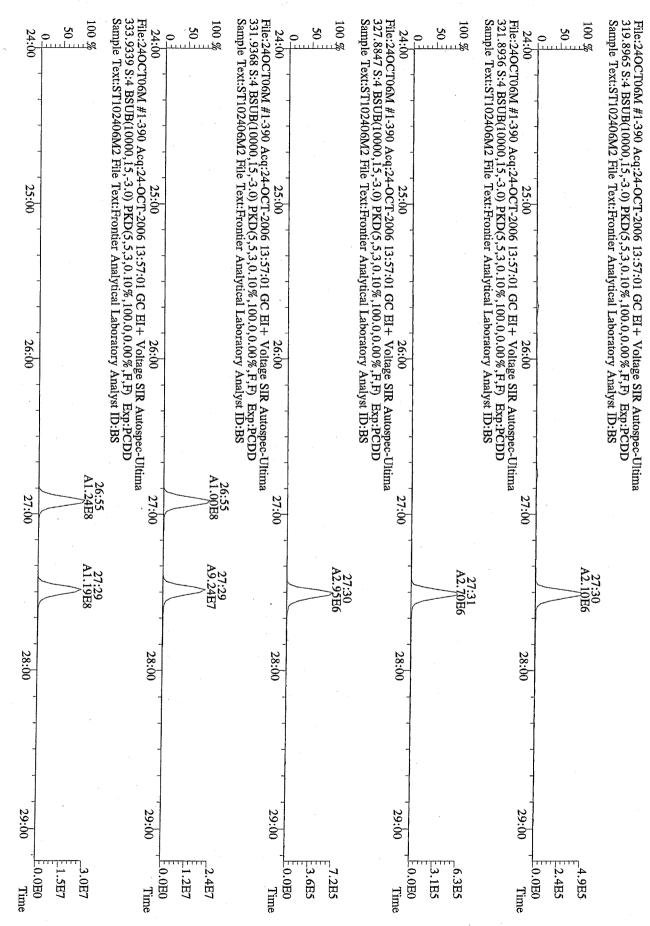


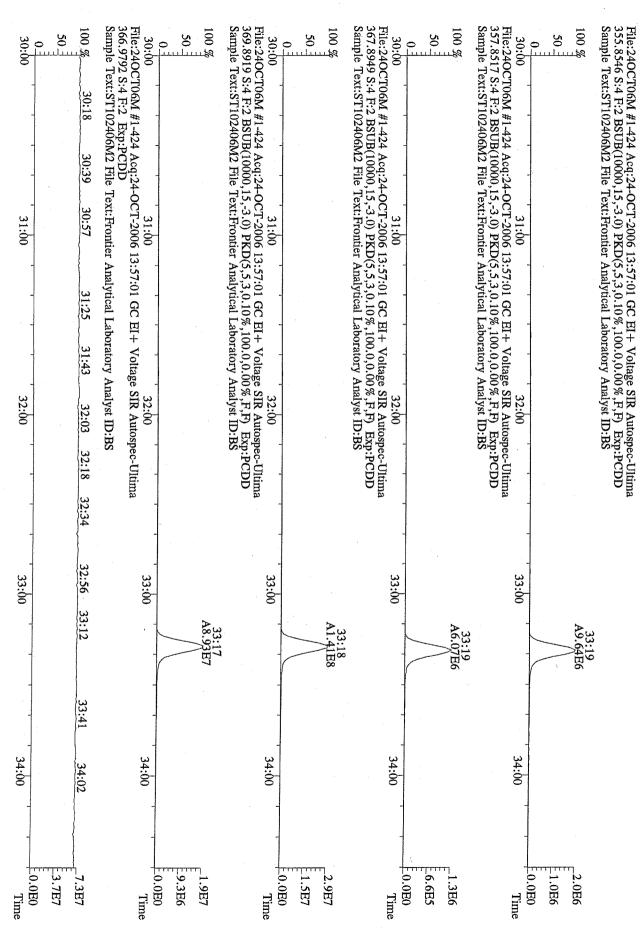


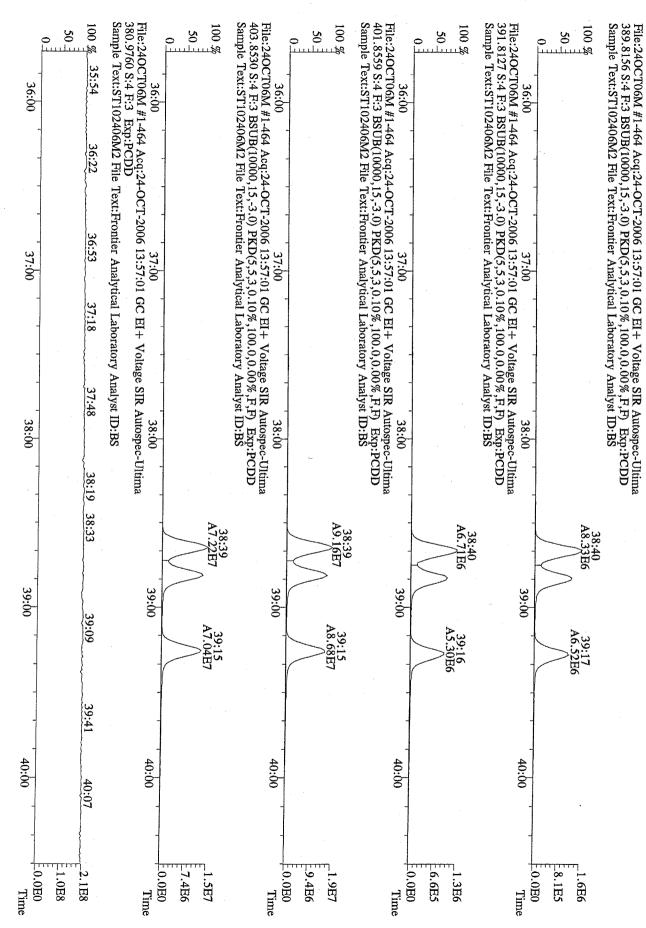


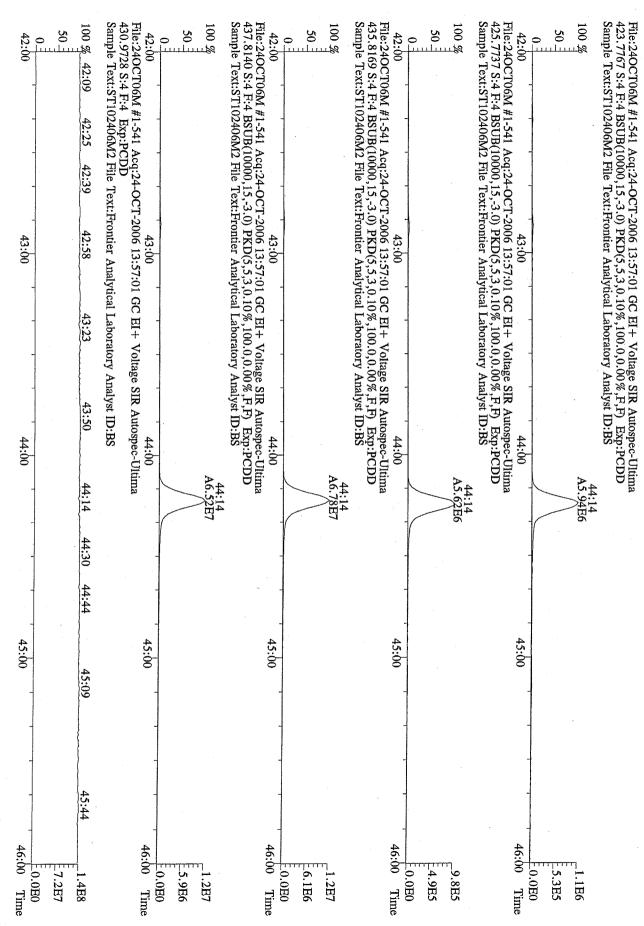


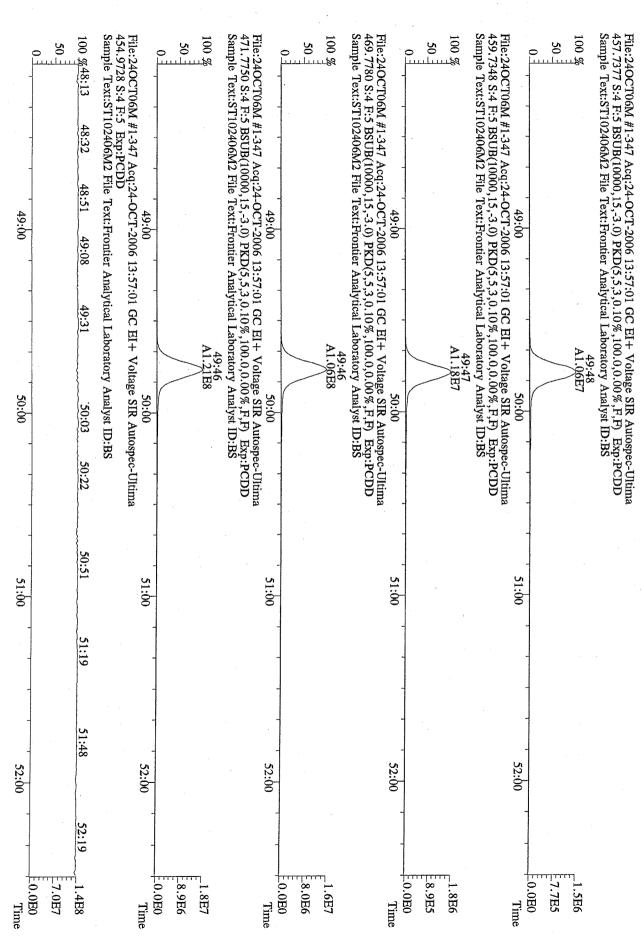


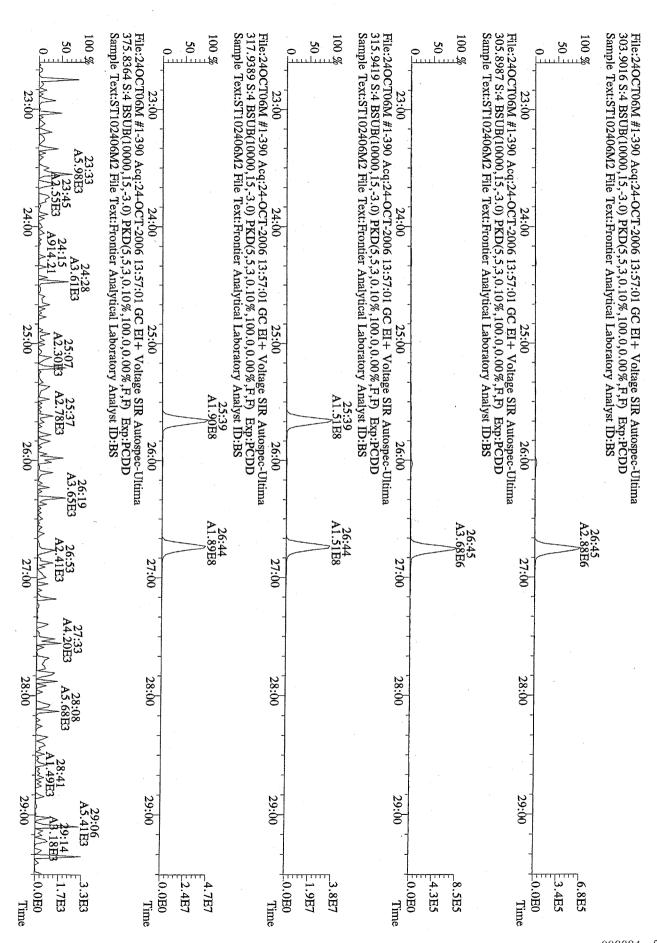


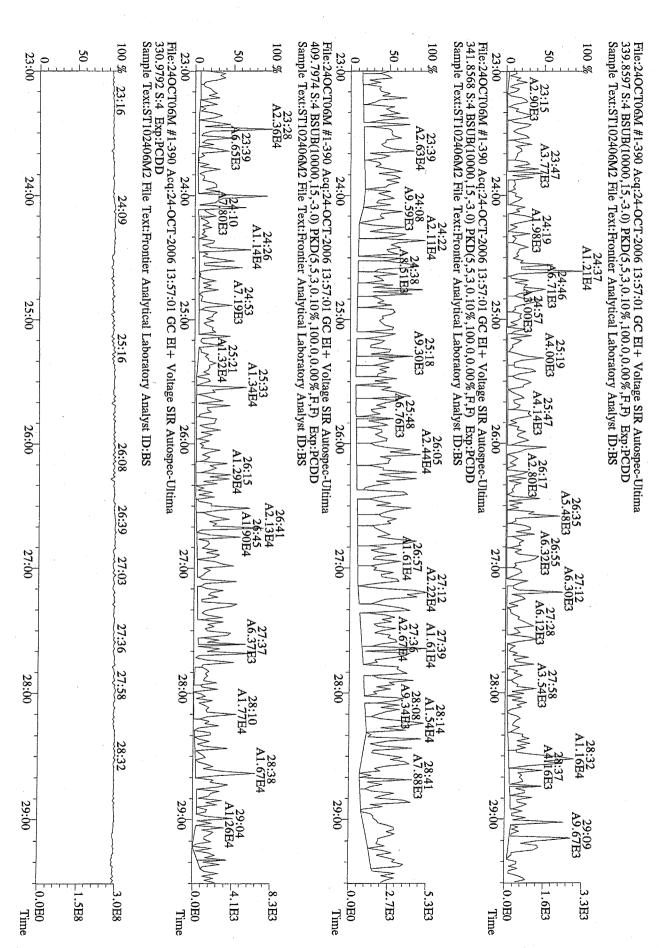


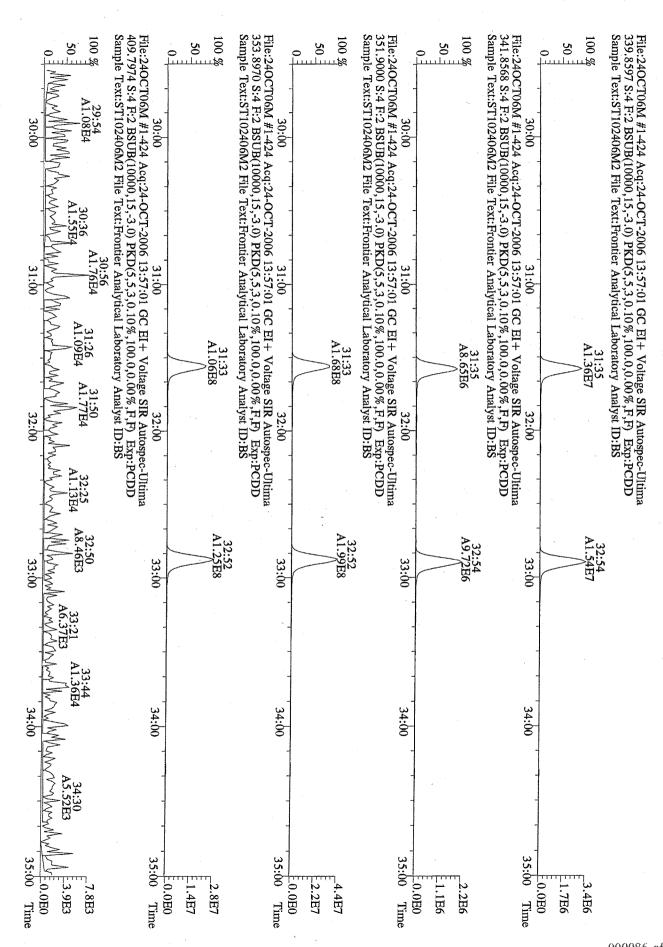


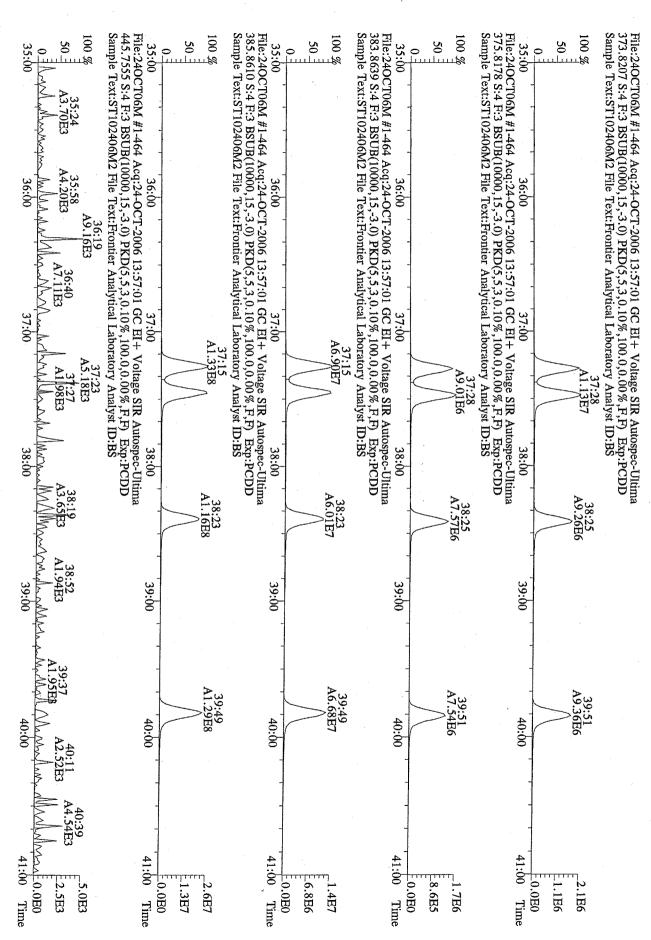


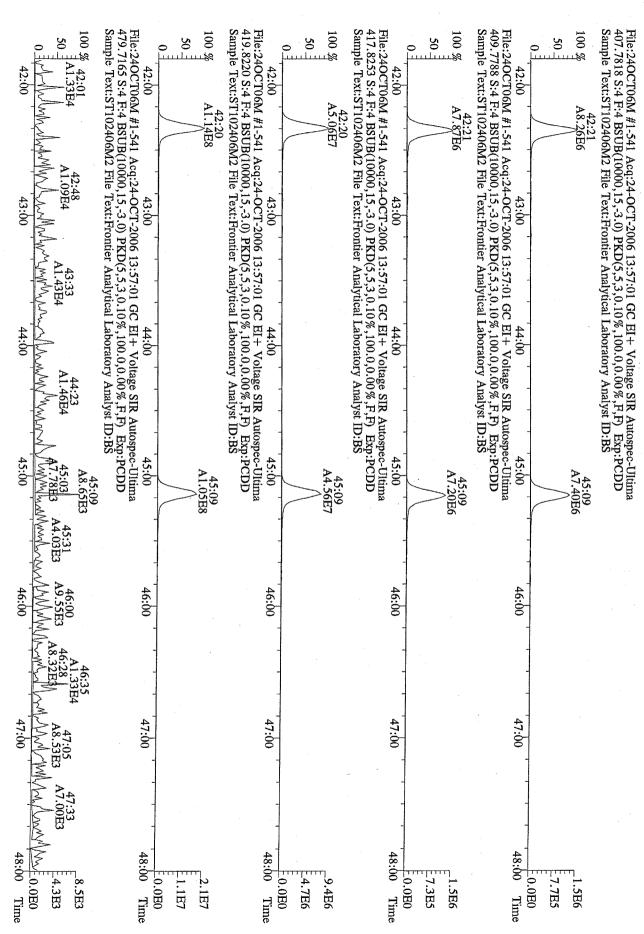


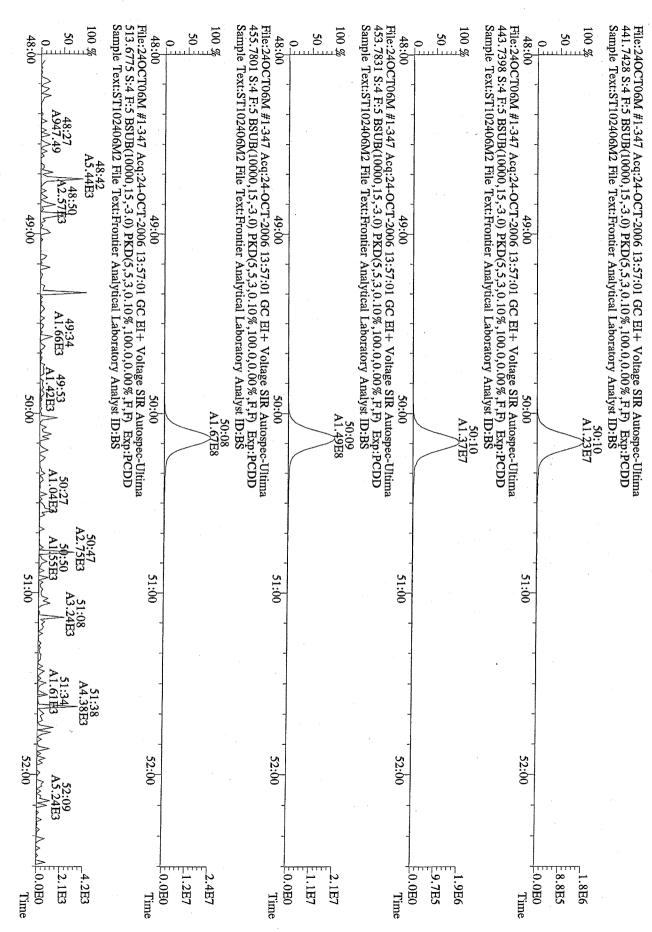


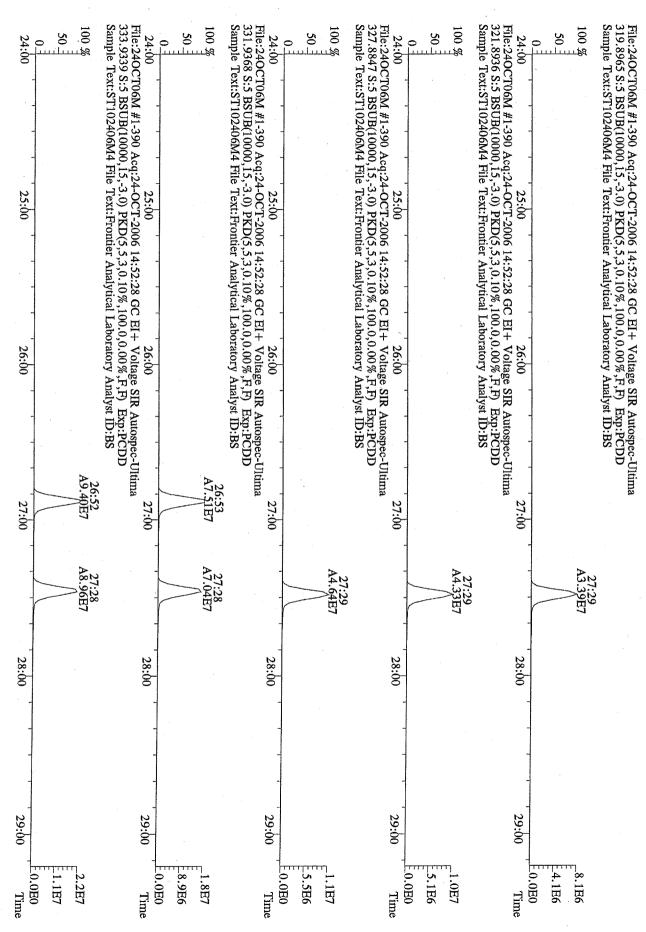


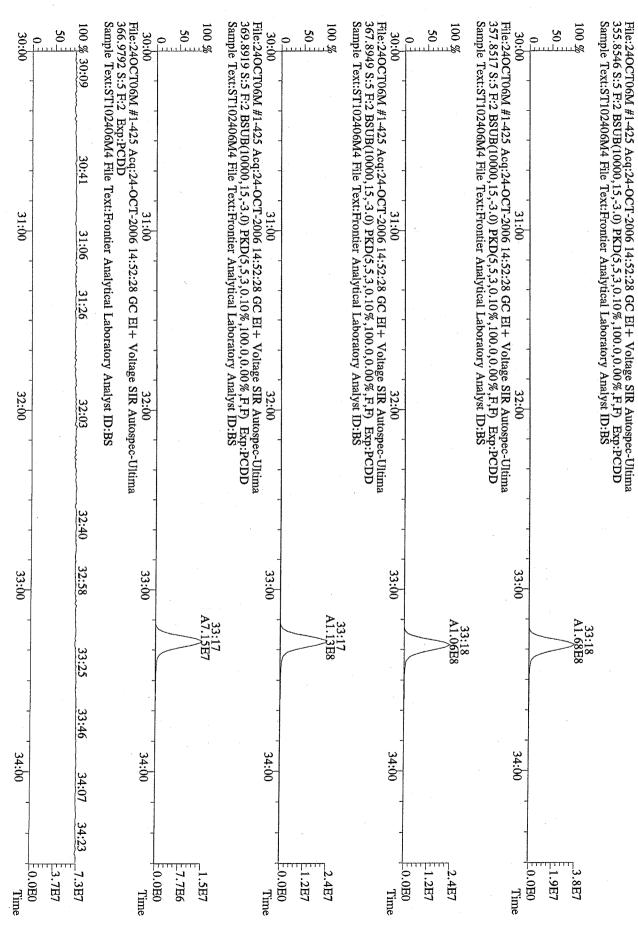


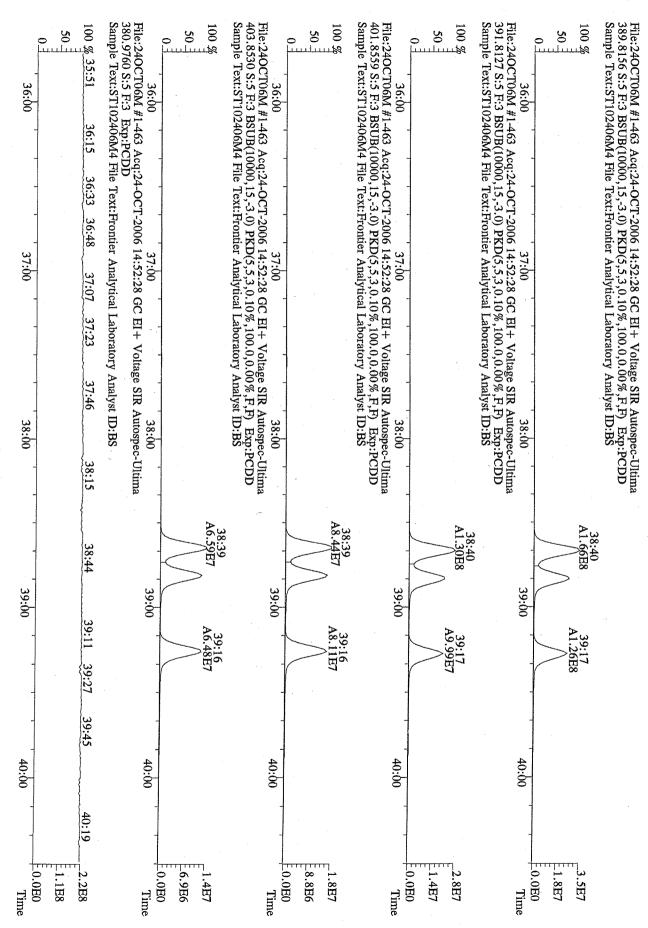


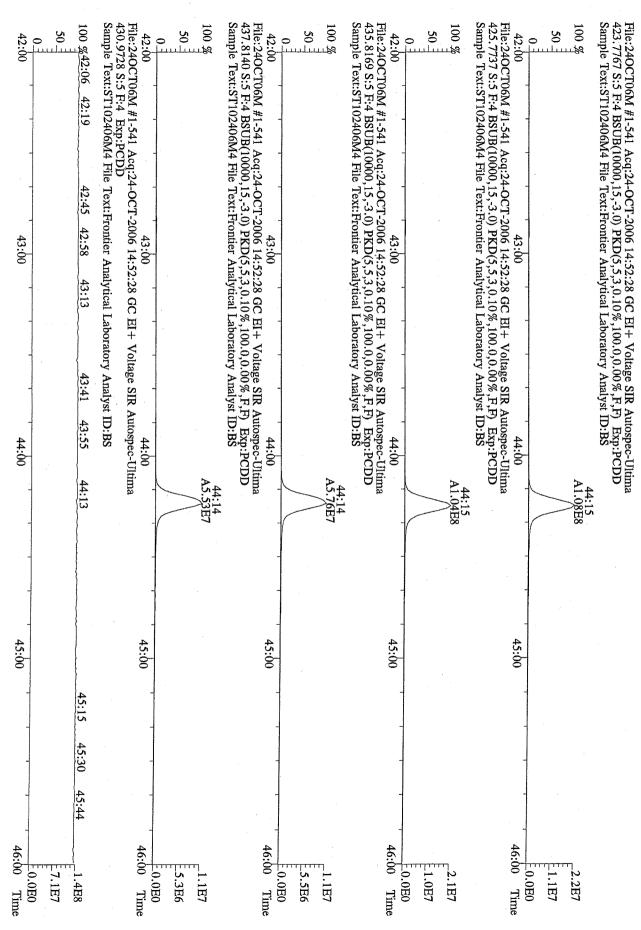


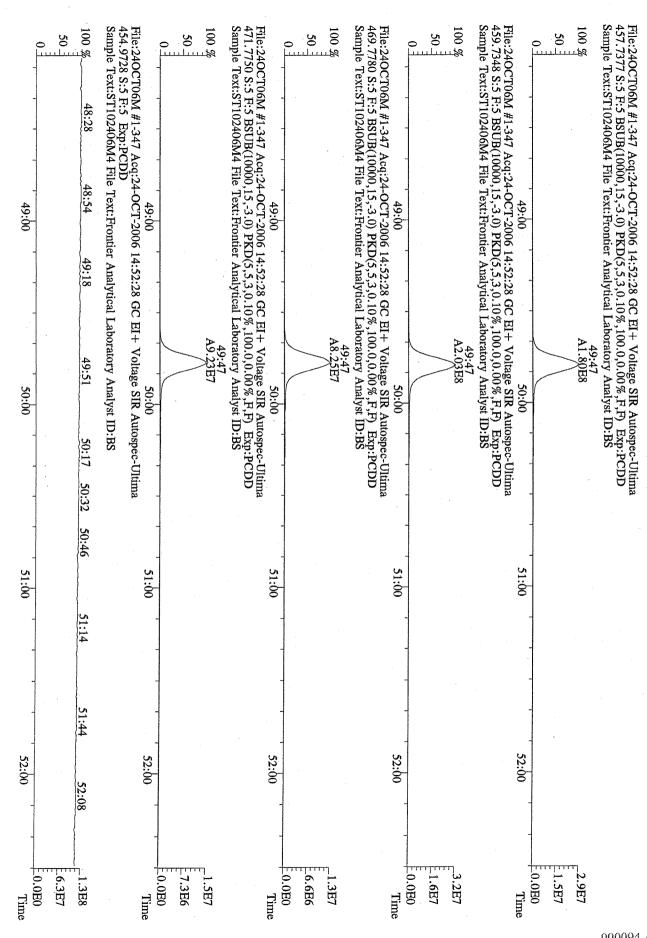


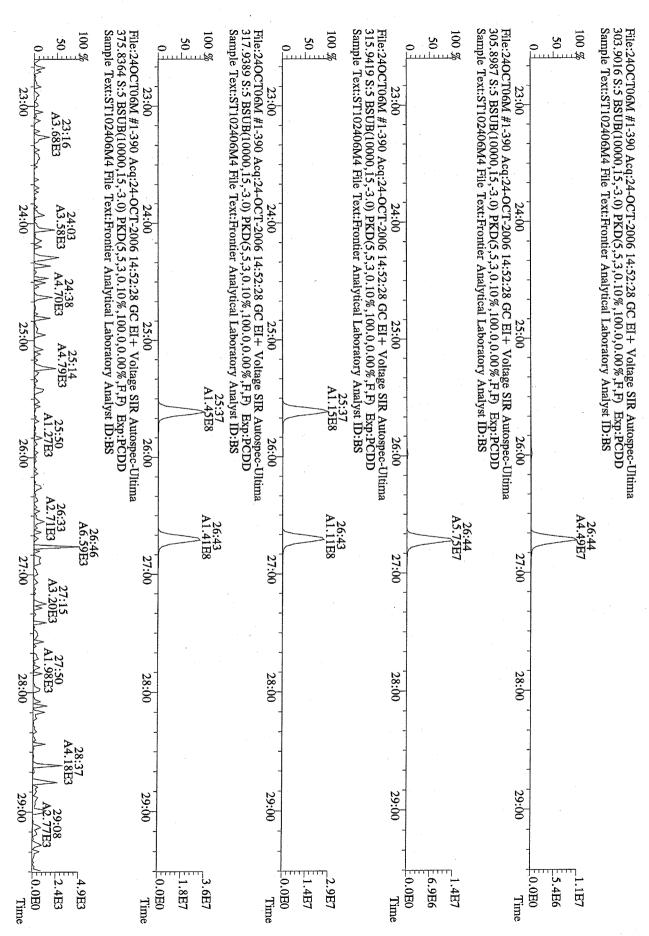


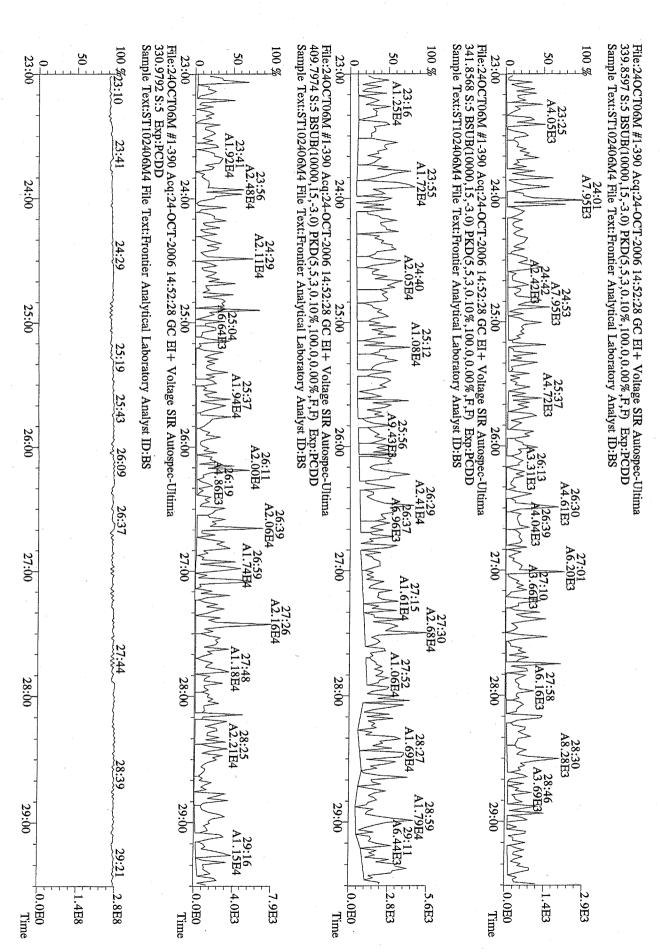


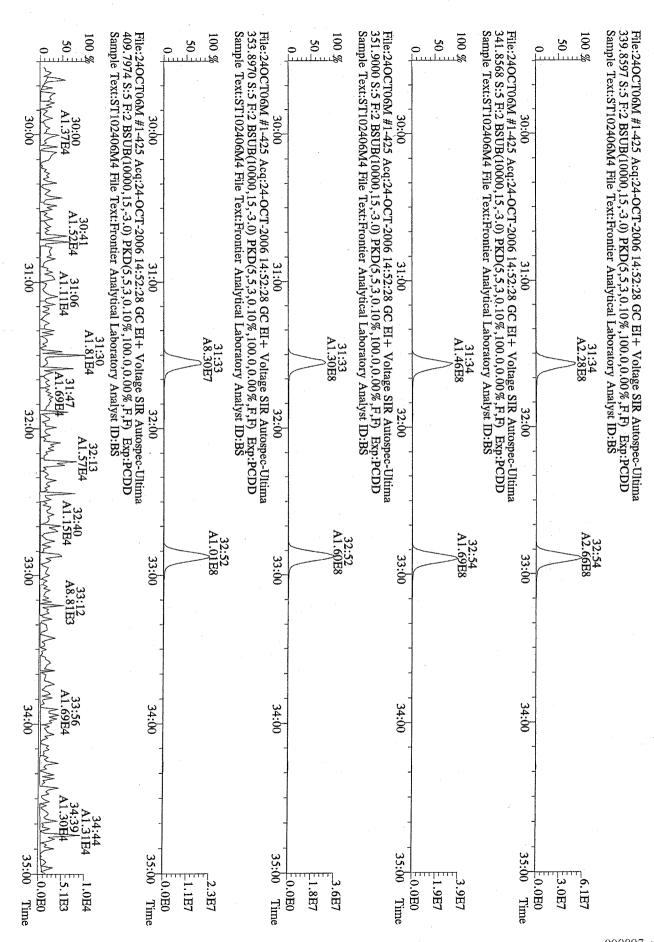


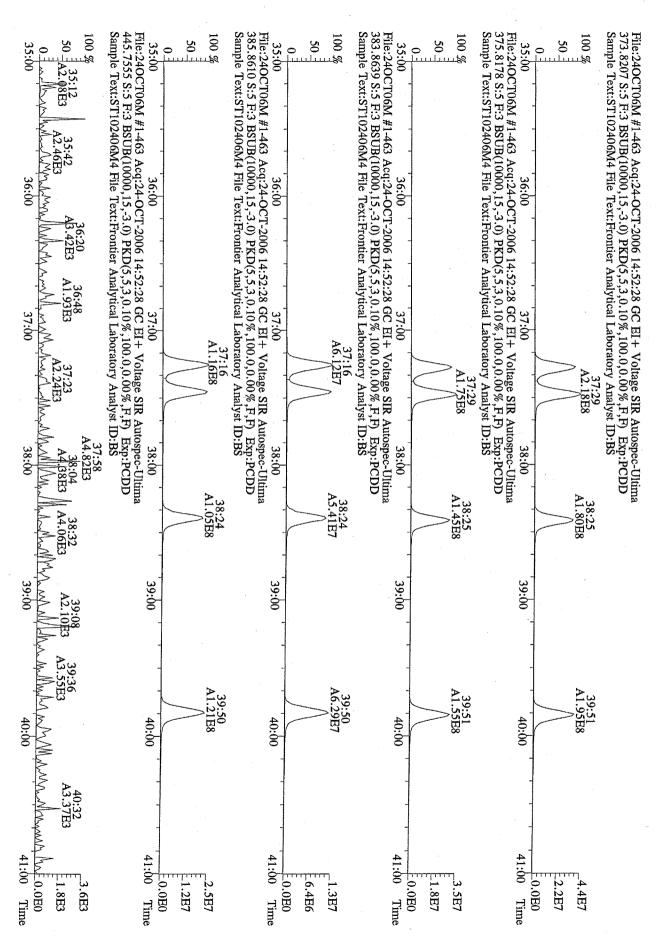


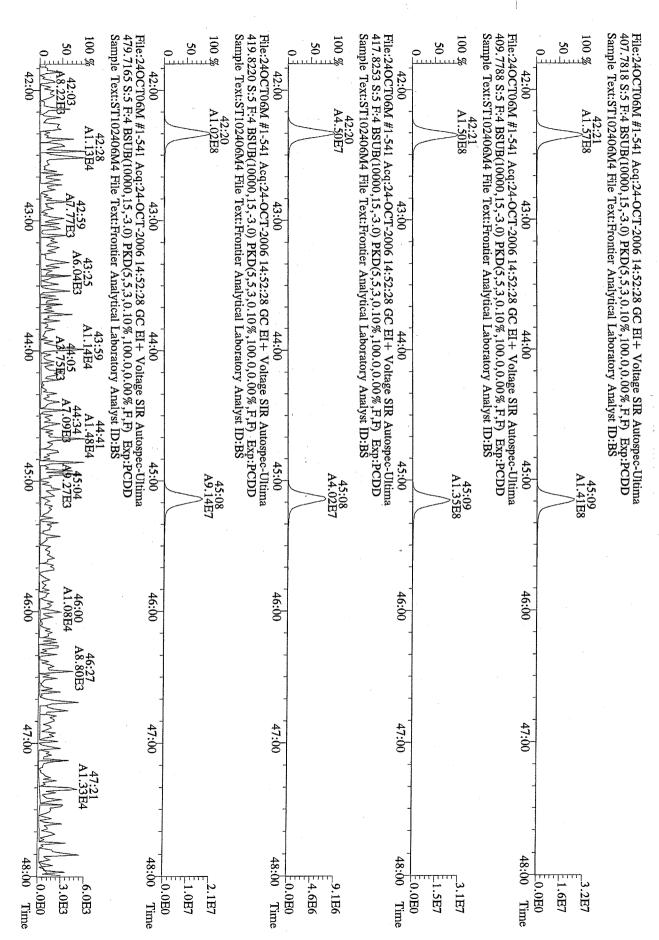


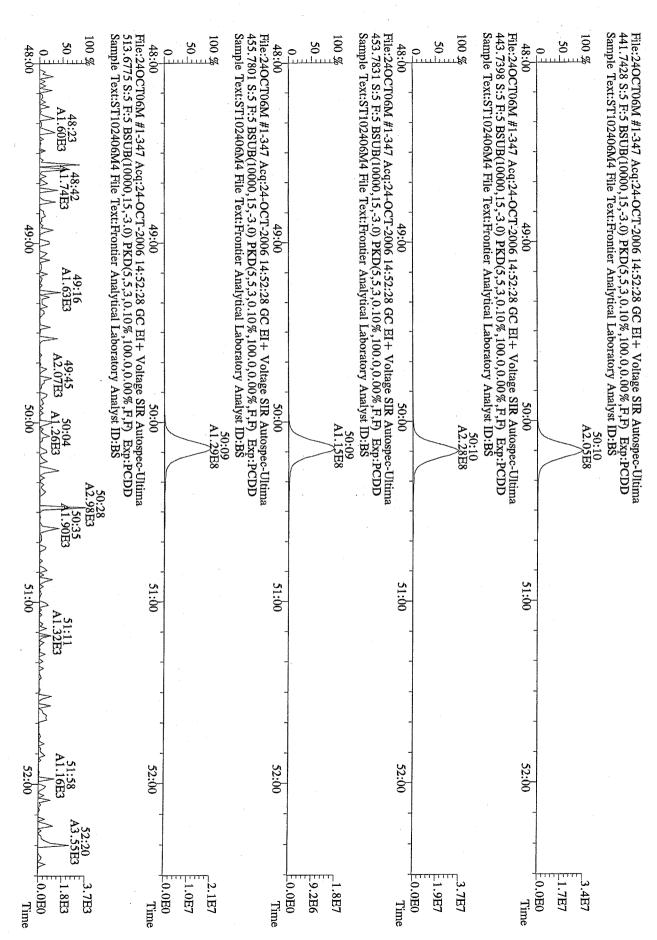


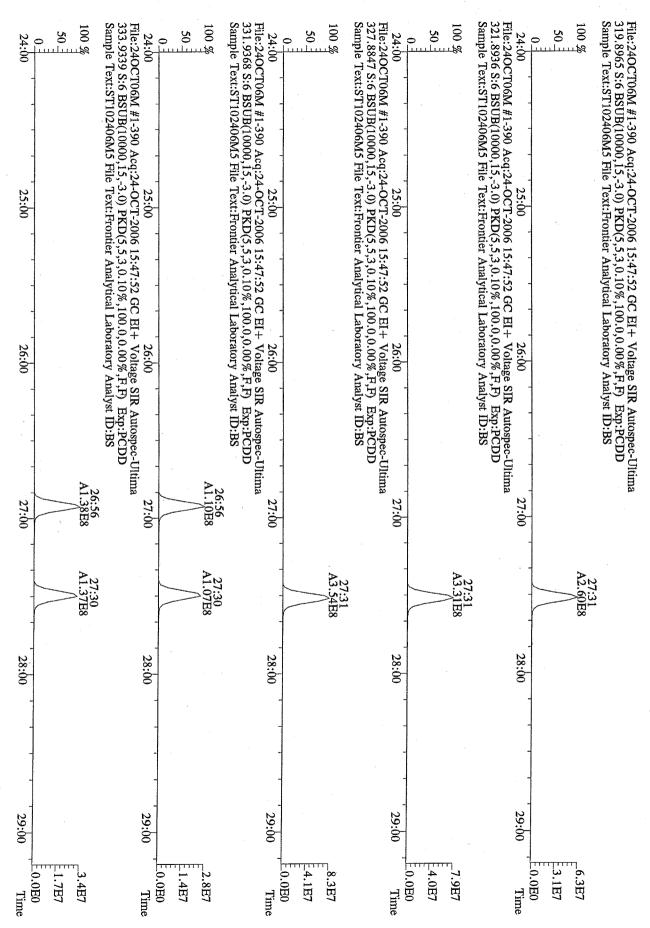


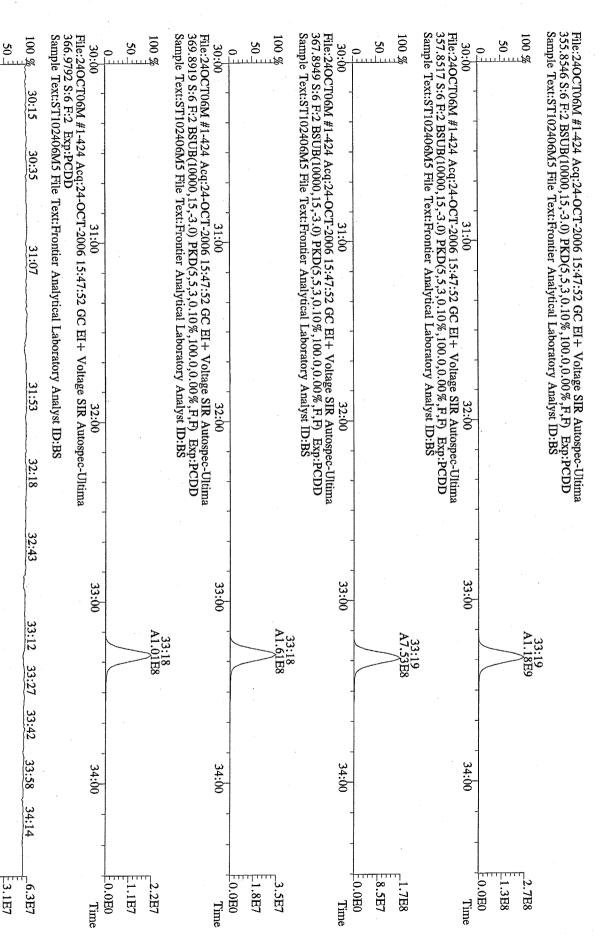












31:00

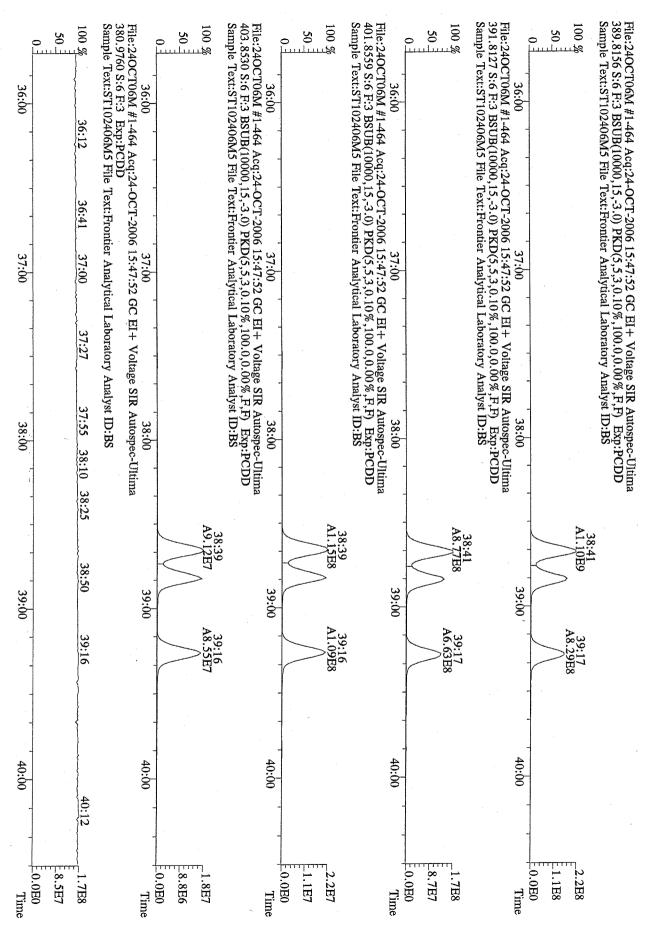
32:00

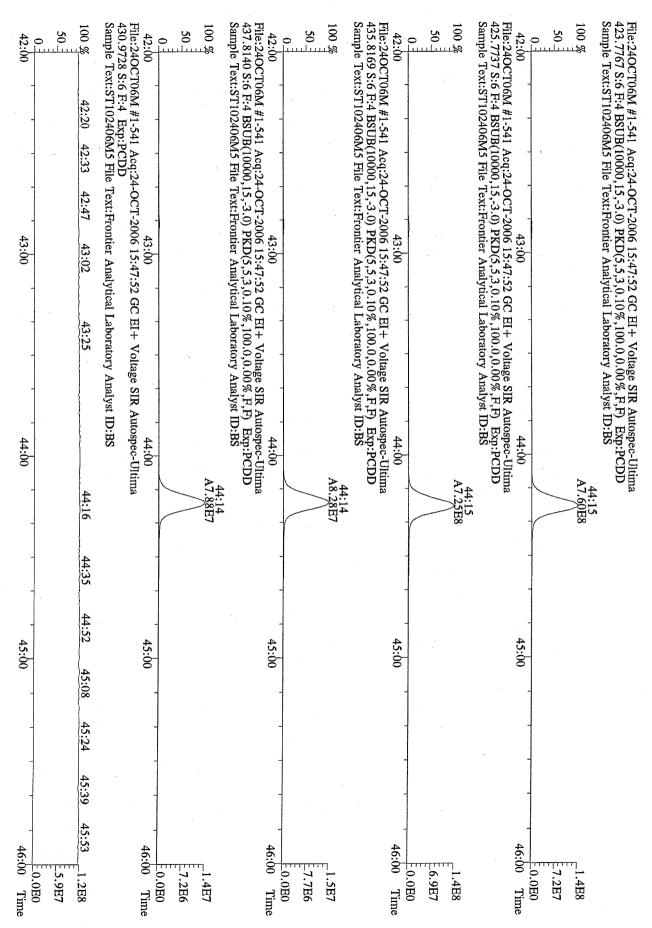
33:00

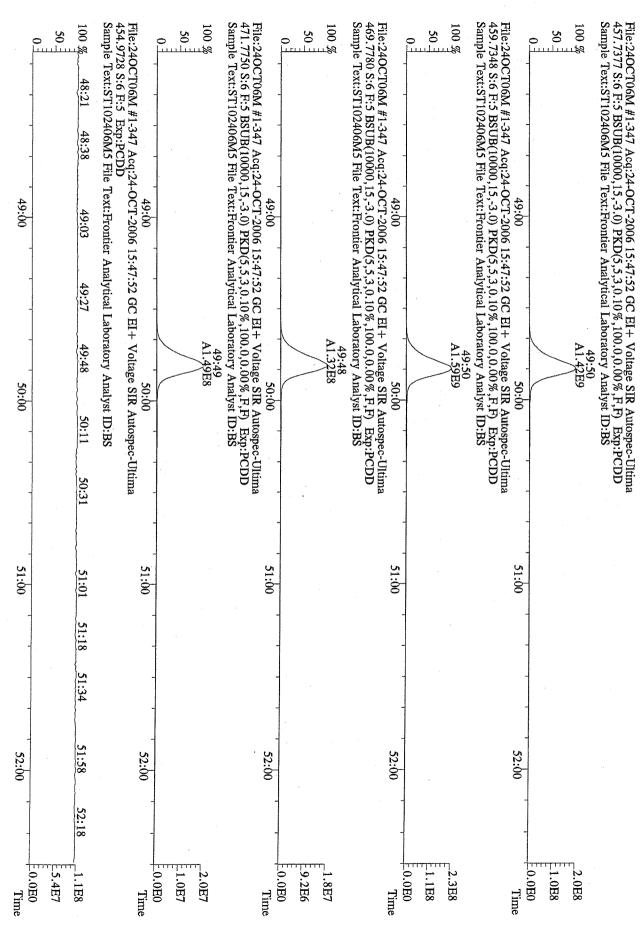
34:00

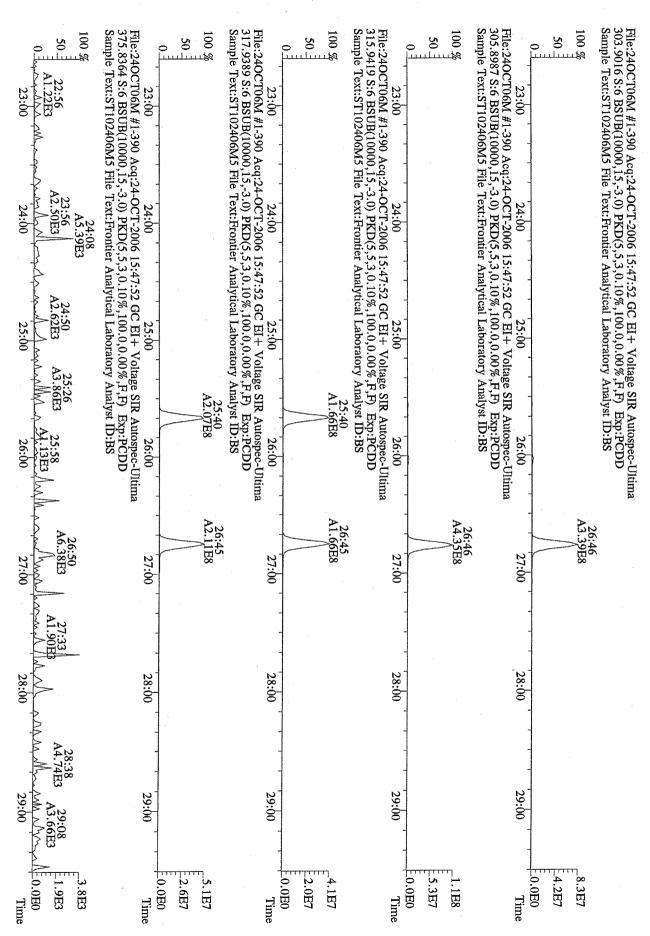
-0.0E0

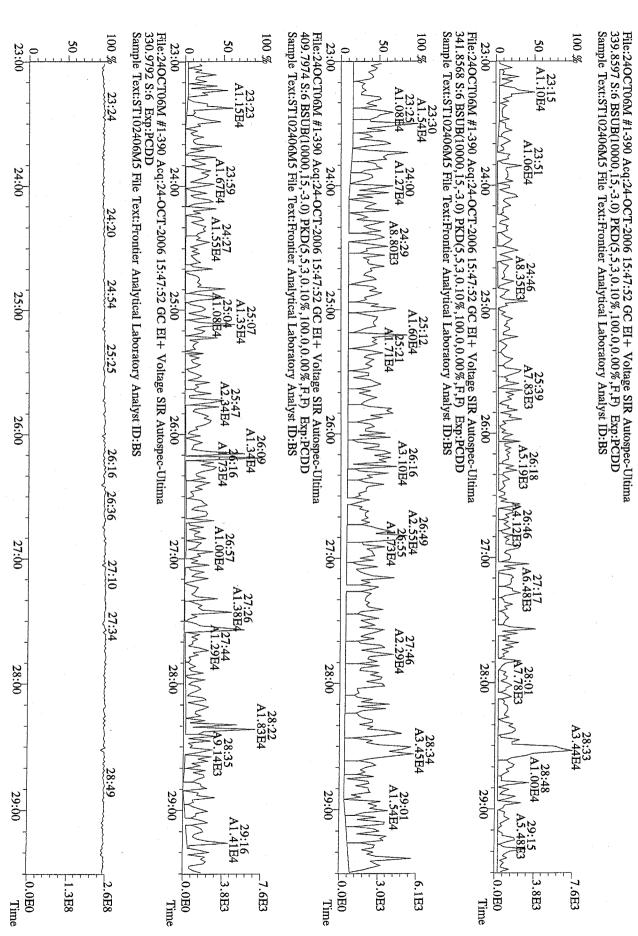
Time

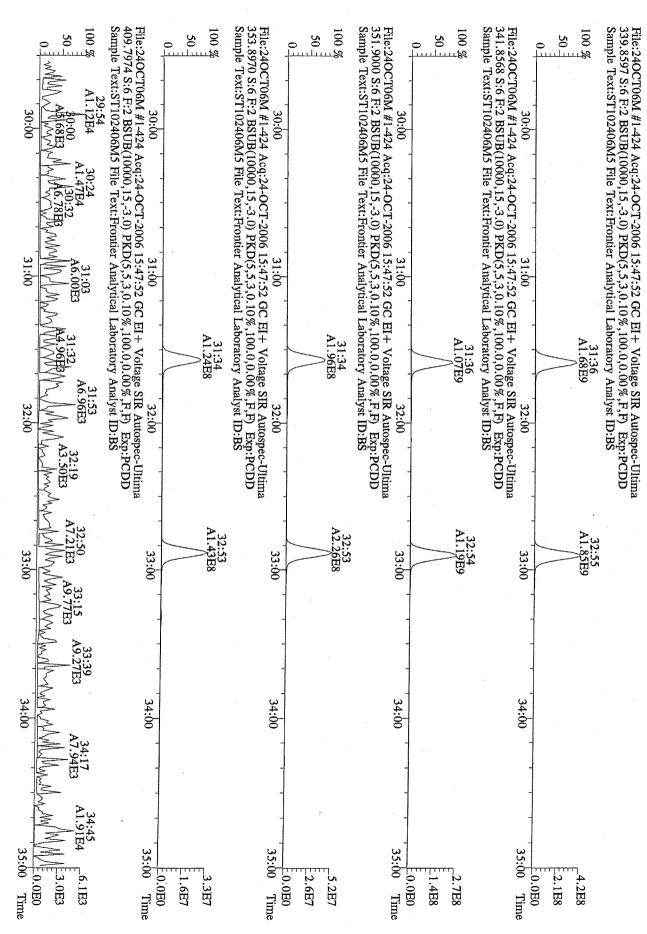


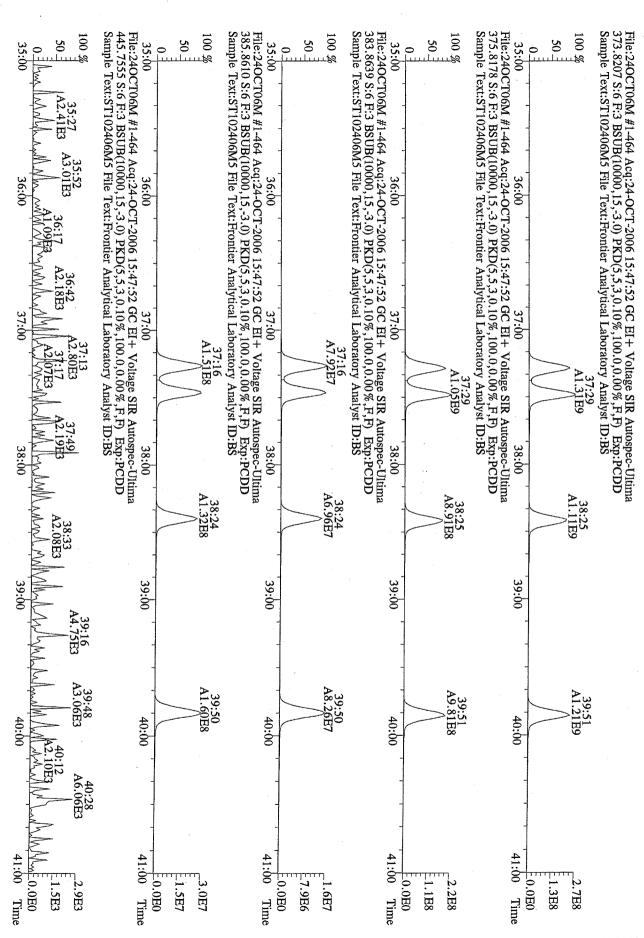


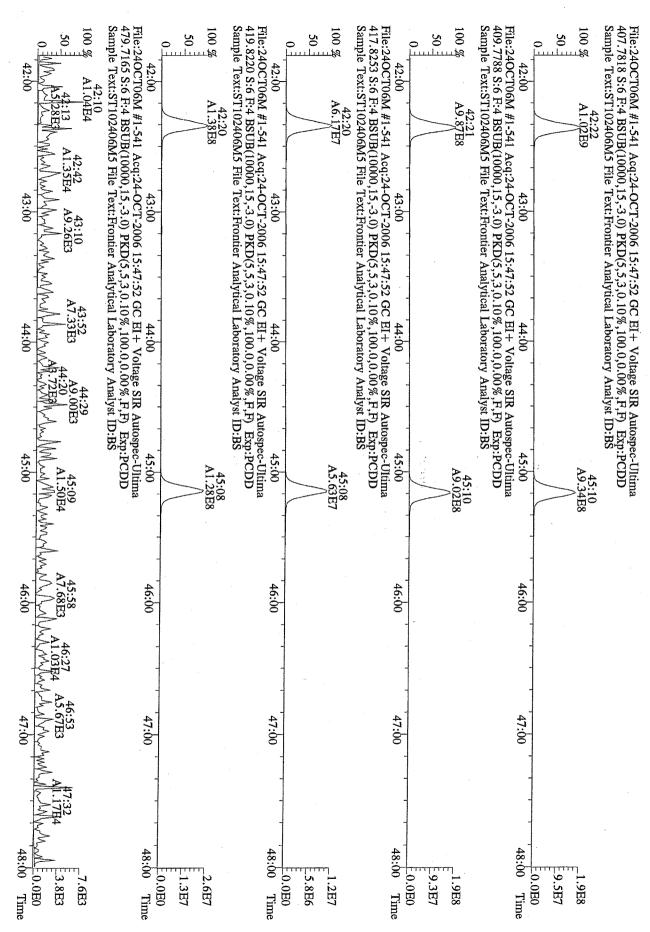


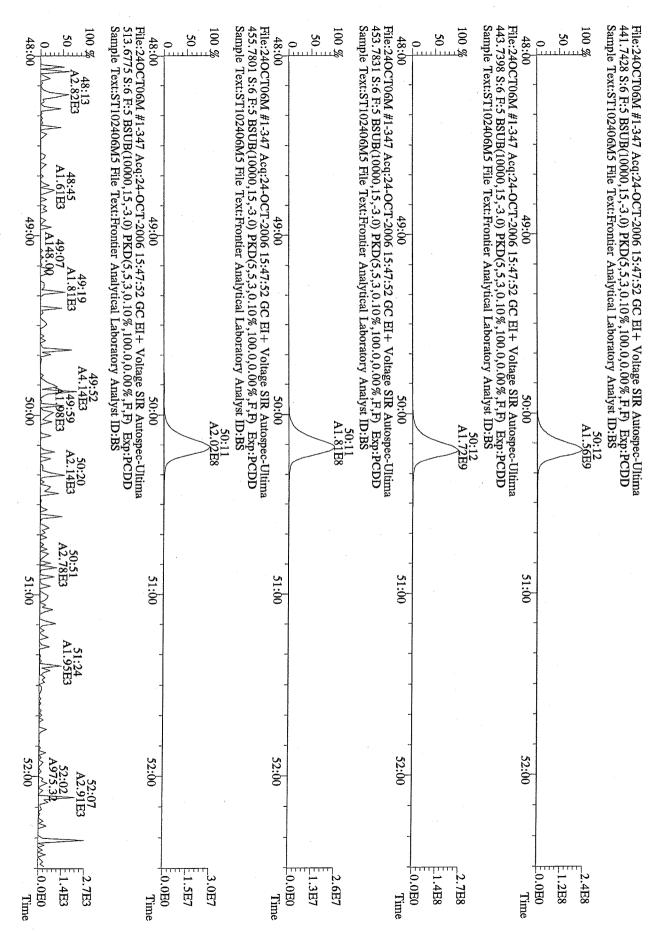












		Fronti	er Analyti	cal Labora				0T0/W	
Amalura		ral D	CDDFAL3-10	1-24-06		Data File	name: 240	LIUOM	
Analyte:		tat: Pi	PDDLMED. 16	s2	s3	\$ 4	s1	s 5	S6
Name	RRF	s.D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
		/		4 07	4.47	4 47	1.23	1.21	1.21
2,3,7,8-TCDD	1.19	0.0435	3.65 %	1.23	1.14 0.63	1.13 0.68	0.71	0.74	0.74
1,2,3,7,8-PeCDD	0.69	0.0456	6.56 %	0.66		0.92	0.98	0.98	0.96
1,2,3,4,7,8-HxCDD	0.94	0.0375	3.98 %	0.91	0.90	0.79	0.84	0.86	0.82
1,2,3,6,7,8-HxCDD	0.81	0.0329		0.79	0.77	0.79	0.78	0.33	0.75
1,2,3,7,8,9-HxCDD	0.74	0.0306	4.12 %	0.72	0.70	0.73	0.78	0.94	0.92
1,2,3,4,6,7,8-HpCDD	0.89	0.0432	4.84 %	0.86	0.83		1.07	1.09	1.07
OCDD	1.03	0.0563	5.47 %	1.01	0.95	0.99	1.07	1.07	, 1.01
2,3,7,8-TCDF	0.97	0.0495	5.09 %	0.96	0.89	0.96	0.98	1.02	1.02
1,2,3,7,8-PeCDF	0.82	0.0524	6.38 %	0.76	0.75	0.81	0.86	0.88	0.86
2,3,4,7,8-PeCDF	0.78	0.0491	6.31 %	0.73	0.71	0.77	0.80	0.83	0.82
1,2,3,4,7,8-HxCDF	0.90	0.0248	2.75 %	0.89	0.87	0.88	0.92	0.94	0.90
1,2,3,6,7,8-HxCDF	1.02	0.0518	5.08 %	0.98	0.95	1.00	1.06	1.08	1.04
2,3,4,6,7,8-HxCDF	0.97	0.0381	3.93 %	0.94	0.92	0.95	0.98	1.02	0.99
1,2,3,7,8,9-HxCDF	0.89	0.0417	4.67 %	0.89	0.84	0.86	0.92	0.95	0.90 -
1,2,3,4,6,7,8-HpCDF	0.99	0.0402	4.05 %	0.96	0.94	0.98	1.02	1.05	1.01
1,2,3,4,7,8,9-HpCDF	0.98	0.0489	4.99 %	0.95	0.91	0.97	1.01	1.05	1.00
OCDF	0.84	0.0403	4.79 %	0.84	0.77	0.83	0.87	0.89	0.86
13C-2,3,7,8-TCDD	0.95	0.0197	2.08 %	0.94	0.93	0.94	0.95	0.95	0.99
13C-1,2,3,7,8-PeCDD	1.06	0.0288	2.72 %	1.10	1.04	1.03	1.04	1.09	1.06
13C-1,2,3,4,7,8-HxCDD	1.05	0.0291	2.76 %	1.10	1.02	1.04	1.06	1.03	1.06
13C-1,2,3,6,7,8-HxCDD	1.00		2.59 %	1.02	0.98	1.02	1.02	0.96	0.97
13C-1,2,3,4,6,7,8-HpCDD	0.82	0.0348	-	0.86	0.79	0.85	0.83	0.77	0.83
13C-OCDD	0.68	0.0483	7.10 %	0.71	0.65	0.72	0.68	0.60	0.72
13c-2,3,7,8-TCDF	0.98	0.0181	1.83 %	0.97	0.98	1.00	0.98	0.97	1.01
13C-1,2,3,7,8-PeCDF	0.83	0.0193	2.33 %	0.85	0.82	0.81	0.83	0.82	0.86
13C-2,3,4,7,8-PeCDF	0.97		2.37 %	0.99	0.95	0.95	0.95	1.00	0.99
13C-1,2,3,4,7,8-HxCDF	1.28	0.0707		1.38	1.31	1.28	1.32	1.22	1.19
13C-1,2,3,6,7,8-HxCDF	1.29	0.0751		1.38	1.31	1.29	1.34	1.24	1.17
13C-2,3,4,6,7,8-HxCDF	1.12		5.08 %	1.20	1.14	1.12	1.16	1.09	1.04
13C-1,2,3,7,8,9-HxCDF	1.27		2.90 %	1.34	1.24	1.24	1.27	1.26	1.25
13C-1,2,3,4,6,7,8-HpCDF	1.06	0.0524	4.96 %	1.14	1.03	1.05	1.10	1.00	1.03
13C-1,2,3,4,7,8,9-HpCDF	0.94	0.0423	4.48 %	1.01	0.90	0.96	0.95	0.90	0.95
13C-0CDF	0.95		7.07 %	1.01	0.91	1.00	0.94	0.84	0.99
37cl-2,3,7,8-TCDD	0.65	0.0450	6.90 %	0.60	0.60	0.66	0.65	0.69	0.72
				,				_	_
13C-1,2,3,4-TCDD	-	-	- %	-	-		-	=	_
13C-1,2,3,4-TCDF	-	. -	- %	-	-	-	•	-	=
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	•	-	
Total Tetra-Dioxins	1.19	0.0435	3.65 %	1.23	1.14	1.13	1.23	1.21	1.21
Total Penta-Dioxins	0.69	0.0456	6.56 %	0.66	0.63	0.68	0.71	0.74	0.74
Total Hexa-Dioxins	0.83		4.04 %	0.81	0.79	0.81	0.87	0.87	0.85
Total Hepta-Dioxins	0.89		4.84 %	0.86	0.83	0.87	0.93	0.94	0.92
Total Tetra-Furans	0.97	0.0495	5.09 %	0.96	0.89	0.96	0.98	1.02	1.02
1st Fn. Tot Penta-Furans	0.80	0.0503	6.31 %	0.74	0.73	0.79	0.83	0.85	0.84
	0.80	0.0503	6.31 %	0.74	0.73	0.79	0.83	0.85	0.84
Total Penta-Furans				0.92	0.89	0.93	0.97	1.00	0.96
Total Hexa-Furans	0.95	0.0381			0.89	0.97	1.02	1.05	1.00
Total Hepta-Furans	0.99	0.0442	4.47 %	0.96	0.73	U.71	1.02	, , , , ,	

Frontier Analytical Laboratory - Acquisition Log

Run Name:	240CT06M	Instrument: FAL3 GC:	DB5 Experiment:PC	CDD		* .
Data File	'S FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
240CT06M	1 ST102406M3	1613 CS3 061011J	24-OCT-06 11:10:51	NA	NA	DV
240CT06M	2 ST102406M0	1613 CSO 061011G	24-OCT-06 12:06:14	NA .	NA	DV
240CT06M	3 ST102406M1	1613 CS1 061011H	24-OCT-06 13:01:38	NA	NA	DV
240CT06M	4 ST102406M2	1613 CS2 061011I	24-OCT-06 13:57:01	NA .	NA .	DV
240CT06M	5 ST102406M4	1613 CS4 061011K	24-OCT-06 14:52:28	NA	NA :	DV
240CT06M	6 ST102406M5	1613 CS5 061011L	24-OCT-06 15:47:52	NA	NA	DV
240CT06M	7 SB102406M1	Solvent Blank	24-0CT-06 16:43:12	NA	NA	DV
240CT06M	8 4005-001-0003-	DUP LPTP06-S3	24-0CT-06 17:38:36	NA	NA	DV .
240CT06M	9 SB102406M2	Solvent Blank	24-0CT-06 18:34:03	NA	NA	DV
240CT06M	10 ST102406M6	1613 CS3 061011J	24-0CT-06 19:29:31	NA	NA	DV
240CT06M	11 ST102406M7	1613 CS3 (051212J)	24-OCT-06 20:24:55	ST102406M7	ST102406M8	DV
240CT06M	12 0988-001-0001-	OPR OPR	24-OCT-06 21:20:18	ST102406M7	ST102406M8	DV
240CT06M	13 0988-001-0001	-MB Method Blank	24-0CT-06 22:15:42	ST102406M7	ST102406M8	DV
240CT06M	14 4117-001-0001	SA WWTP Eff. Comp.	24-OCT-06 23:11:05	ST102406M7	ST102406M8	DV
240CT06M	15 4118-001-0001	-SA IPJ1685-01	25-0CT-06 00:06:25	ST102406M7	ST102406M8	DV
240CT06M	16 4120-001-0001	-SA 6100583-01	25-OCT-06 01:01:47	ST102406M7	ST102406M8	DV .
240CT06M	17 SB102406M3	Solvent Blank	25-OCT-06 01:57:11	ST102406M7	ST102406M8	DV
240CT06M	18 ST102406M8	1613 CS3 (051212J)	25-0CT-06 02:52:35	ST102406M7	ST102406M8	DV
			1			

8 10/25/06

ata	Backed	Up:
ate:		

Run #1 Filename 240CT06M S: 2 Acquired: 24-0CT-06 12:06:14 Cal: PCDDFAL3-10-24-06 Client ID: ST102406M0 Analyte: FAL ID: 1613 CS0 061011G

LLIE	יתו זע:	51102400MU	Alic	atyte.				AL ID.	013 63
	Тур	Name	Amount	Resp	RA	RT	RF	RRF	
. 1	Unk	2,3,7,8-TCDD	0.25	5.93e+05	0.84 y	27:30	-	1.23	У
2	Unk	1,2,3,7,8-PeCDD	1.25	1.86e+06	1.57 y	33:19	-	0.661	У
3	Unk	1,2,3,4,7,8-HxCDD	1.25	2.03e+06	1.33 y	38:40	. •	0.915	У
4	Unk	1,2,3,6,7,8-HxCDD	1.25	1.62e+06	1.26 y	38:50	-	0.790	У
5	Unk	1,2,3,7,8,9-HxCDD	1.25	1.55e+06	1.26 y	39:16	-	0.724	У
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	1.50e+06	1.10 y	44:15	_	0.863	у
7	Unk	OCDD	2.50	2.89e+06	0.90 y	49:47		1.01	У
8	Unk	2,3,7,8-TCDF	0.25	7.47e+05	0.70 y	26:45	-	0.961	у
9	Unk	1,2,3,7,8-PeCDF	1.25	2.60e+06	1.59 y	31:34	-	0.765	У
10	Unk	2,3,4,7,8-PeCDF	1.25	2.89e+06	1.61 y	32:53	-	0.726	У
11	Unk	1,2,3,4,7,8-HxCDF	1.25	2.49e+06	1.24 y	37:16	-	0.894	У
12	Unk	1,2,3,6,7,8-HxCDF	1.25	2.72e+06	1.30 y	37:28	=	0.978	У
13	Unk	2,3,4,6,7,8-HxCDF	1.25	2.28e+06	1.25 y	38:24		0.940	у
14	Unk	1,2,3,7,8,9-HxCDF	1.25	2.39e+06	1.25 y	39:50		0.886	У
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	2.22e+06	1.08 y	42:20	-	0.963	У
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	1.94e+06	1.06 y	45:09	-	0.952	У
17	Unk	OCDF	2.50	3.42e+06	0.90 y	50:10	-	0.840	У
. 18	IS/RT	13C-2,3,7,8-TCDD	100.00	1.93e+08	0.78 y	27:29		0.938	ý
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.25e+08	1.59 y	33:17	· <u>-</u>	1.10	У
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.78e+08	1.27 y	38:38	-	1.10	У
21	IS	13c-1,2,3,6,7,8-HxCDD	100.00	1.64e+08	1.26 y	38:48	-	1.02	У
22	IS	13c-1,2,3,4,6,7,8-HpCDD	100.00	1.39e+08	1.05 y	44:13		0.863	У
23	18	13C-OCDD	200.00	2.29e+08	0.90 y	49:46	-	0.711	У
.24	IS	13C-2,3,7,8-TCDF	.100.00	3.11e+08	0.80 y	26:44	-	0.966	у
25	IS	13C-1,2,3,7,8-PeCDF	100.00	2.72e+08	1.58 y	31:34	•	0.846	у .
26	IS.	13C-2,3,4,7,8-PeCDF	100.00	3.19e+08	1.57 y	32:53	-	0.990	y
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	2.23e+08	0.52 y	37:15	-	1.38	У
28	IS	13c-1,2,3,6,7,8-HxCDF	100.00	2.23e+08	0.52 y	37:27		1.38	У
29	IS	13c-2,3,4,6,7,8-HxCDF	100.00	1.94e+08	0.53 y	38:23	•	1.20	У
30	IS	13C-1,2,3,7,8,9-HXCDF	100.00	2.16e+08	0.52 y	39:49	-	1.34	У
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.84e+08	0.44 y	42:19	-	1.14	У
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.63e+08	0.44 y	45:08	-	1.01	У
33	IS	13C-0CDF	200.00	3.26e+08	0.89 y	50:08	~	1.01	У
34	C/Up	37Cl-2,3,7,8-TCDD	0.25	3.10e+05		27:30		0.603	у
35	RS	13C-1,2,3,4-TCDD	100.00	2.06e+08	0.80 y	26:55	2.06e+06	-	, n ,
36	RS	13C-1,2,3,4-TCDF	100.00	3.22e+08	0.79 y	25:40	3.22e+06		n
37	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.61e+08	1.26 y	39:15	1.61e+06	-	n
38	Tot	Total Tetra-Dioxins	0.00	-	- n	<u>-</u>		1.23	У
39	Tot	Total Penta-Dioxins	0.00	-	- n	-	• •	0.661	y .
40	Tot	Total Hexa-Dioxins	0.00	-	n	•	-	0.811	У
41	Tot	Total Hepta-Dioxins	0.00	•	- n	•	· •	0.863	У
42	Tot	Total Tetra-Furans	0.00	-	- n	-		0.961	У
43	Tot	1st Fn. Tot Penta-Furans	0.00	-1,	- n	- `	-	0.744	У
44	Tot	Total Penta-Furans	0.00	-	- n	-	-	0.744	У
45	Tot	Total Hexa-Furans	0.00	-	- n	-	-	0.924	У
46	Tot	Total Hepta-Furans	0.00		- n	•	-	0.958	У

Analyst:

Date: 1057/06

Cli	ent ID:	S11U24U6M1	Ana	ityte;		•	r.	L 10. 1	012 (31
	Тур	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	0.50	1.19e+06	0.75 y	27:30	-	1.14	у
2	Unk	1,2,3,7,8-PeCDD	2.50	3.67e+06	1.53 y	33:19	-	0.629	ý
3	Unk	1,2,3,4,7,8-HxCDD	2.50	3.65e+06	1.23 y	38:40		0.897	y
4	Unk	1,2,3,6,7,8-HxCDD	2.50	3.01e+06	1.33 y	38:49		0.773	y
5	Unk	1,2,3,7,8,9-HxCDD	2.50	2.79e+06	1.26 y	39:17	· .	0.700	, y
		1,2,3,4,6,7,8-HpCDD	2.50	2.59e+06	1.06 y	44:15		0.830	ý
6	Unk	0CDD	5.00	4.93e+06	0.89 y	49:47	_	0.948	y
7	Unk	· · ·	0.00	4.736100	r				
8	Unk	2,3,7,8-TCDF	0.50	1.47e+06	0.78 y	26:45	-	0.887	y
9	Unk	1,2,3,7,8-PeCDF	2.50	5.24e+06	1.60 y	31:35	-	0.755	У
10	Unk	2,3,4,7,8-PeCDF	2,50	5.77e+06	1.55 y	32:54	-	0.715	У
11	Unk	1,2,3,4,7,8-HxCDF	2.50	4.51e+06	1.29 y	37:17	-	0.868	У.
12	Unk	1,2,3,6,7,8-HxCDF	2.50	4.93e+06	1.22 y	37:28	-	0.949	У
13	Unk	2,3,4,6,7,8-HxCDF	2.50	4.16e+06	1.28 y	38:25	-	0.921	У
14	Unk	1,2,3,7,8,9-HxCDF	2.50	4.11e+06	1.26 y	39:51	-	0.835	У
15	Unk	1,2,3,4,6,7,8-HpCDF	2.50	3.83e+06	1.04 y	42:21	-	0.940	· y
16	Unk	1,2,3,4,7,8,9-HpCDF	2.50	3.23e+06	1.04 y	45:09	-	0.908	у
17	Unk	OCDF	5.00	5.61e+06	0.88 y	50:09	-	0.772	У
40	10 IDT	47c 2 7 7 9-1cpp	100.00	2.09e+08	0.79 y	27:29	-	0.929	· y
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.34e+08	1.57 y	33:18	- .	1.04	у
19	IS	13C-1,2,3,7,8-PeCDD		1.63e+08	1.27 y	38:39	_	1.02	
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00		•		_	0.981	y
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.56e+08	1.29 y	38:49	_	0.786	
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.25e+08	1.06 y	44:13			-
23	IS	13C-OCDD	200.00	2.08e+08	0.90 y	49:47	*	0.654	. У
24	IS	13C-2,3,7,8-TCDF	100.00	3.31e+08	0.80 y	26:44	-	0.979	У
25	IS	13C-1,2,3,7,8-PeCDF	100.00	2.77e+08	1.58 y	31:33	- .	0.821	У
26		13C-2,3,4,7,8-PeCDF	100.00	3.23e+08	1.56 y	32:52	· -	0.955	У
27		13C-1,2,3,4,7,8-HxCDF	100.00	2.08e+08	0.52 y	37:15	-	1.31	у
28		13C-1,2,3,6,7,8-HxCDF	100.00	2.08e+08	0.52 y	37:27	-	1.31	У
29		13C-2,3,4,6,7,8-HxCDF	100.00	1.81e+08	0.53 y	38:23	-	1.14	у
30		13C-1,2,3,7,8,9-HxCDF	100.00	1.97e+08	0.52 y	39:49	-	1.24	. у
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.63e+08	0.44 y	42:20		1.03	
32		13C-1,2,3,4,7,8,9-HpCDF	100.00	1.42e+08	0.44 y	45:08	_	0.896	-
33		13C-0CDF	200.00	2.90e+08	0.88 y	50:08	-	0.914	
33	IS			-	0.00 /				·
34	C/Up	37cl-2,3,7,8-TCDD	0.50	6.78e+05		27:30		0.602	У
35	RS	13C-1,2,3,4-TCDD	100.00	2.25e+08	0.80 y	26:55	2.25e+06	-	n
36		13c-1,2,3,4-TCDF	100.00	3.38e+08	0.80 y	25:39	3.38e+06	-	n
37			100.00	1.59e+08	1.29 y	39:15	1.59e+06	-	n
38	Tot	Total Tetra-Dioxins	0.00		- n	-	-	1.14	у
39		Total Penta-Dioxins	0.00	-	- n	. =	-	0.629	у
40	Tot	Total Hexa-Dioxins	0.00	- ,	- n	-	-	0.791	y
41	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	0.830	у
42	Tot	Total Tetra-Furans	0.00	-	- n		-	0.887	y .
43	Tot	1st Fn. Tot Penta-Furans	0.00	-	- n	-	-	0.733	у .
44	Tot	Total Penta-Furans	0.00	•	· - n	-	-	0.733	у
45	Tot	Total Hexa-Furans	0.00	_	- n	-	-	0.893	y
46	Tot	Total Hepta-Furans	0.00	_	- n	-	-	0.925	y y
40	100	Total nepta-rulans	0.00		*1				,

Analyst:

Date: 10/31/06

Acquired: 24-OCT-06 13:57:01 Cal: PCDDFAL3-10-24-06 Filename 240CT06M S: 4 Run #3 FAL ID: 1613 CS2 061011I Client ID: ST102406M2 Analyte: RT RF RRF RΔ Name Amount Resp Typ 0.78 y 1.13 4.79e+06 27:30 2,3,7,8-TCDD 2.00 У 1 Unk 0.681 10.00 1.57e+07 1.59 v 33:19 У 1,2,3,7,8-PeCDD 2 Unk 0.919 38:40 У 1,2,3,4,7,8-HxCDD 10.00 1.50e+07 1.24 y 3 Unk 1,2,3,6,7,8-HxCDD 10.00 1.27e+07 1.27 y 38:50 0.794 У Unk 1.23 y 39:17 0.729 У 1,2,3,7,8,9-HxCDD 10.00 1.18e+07 5 Unk 0.869 1.06 y 44:14 У 1,2,3,4,6,7,8-HpCDD 10.00 1.16e+07 Unk 6 0.992 0.90 y 49:48 У OCDD 20.00 2.24e+07 7 Unk 0.78 y 0.965 2.00 6.56e+06 26:45 'n 2,3,7,8-TCDF 8 Unk 1,2,3,7,8-PeCDF 1.57 y 0.812 2.23e+07 31:35 У 10.00 9 Unk 0.773 1.58 y 32:54 У 10.00 2.51e+07 2,3,4,7,8-PeCDF 10 Unk 1.79e+07 1.27 y 37:17 0.885 У 1,2,3,4,7,8-HxCDF 10.00 11 Unk 1.25 y 37:28 1.00 У 1,2,3,6,7,8-HxCDF 10.00 2.03e+07 12 Unk 0.953 10.00 1.68e+07 1.22 y 38:25 У 2,3,4,6;7,8-HxCDF 13 Unk 0.864 1,2,3,7,8,9-HxCDF 10.00 1.69e+07 1.24 y 39:51 У 14 link 0.980 1.05 y 42:21 У 1,2,3,4,6,7,8-HpCDF 10.00 1.61e+07 15 Unk 0.970 1,2,3,4,7,8,9-HpCDF 1.46e+07 1.03 y 45:09 У 10.00 16 link 0.825 0.90 y 50:10 У OCDF 20.00 2.61e+07 17 Unk 0.940 13C-2,3,7,8-TCDD 100.00 2.11e+08 0.78 y27:29 18 IS/RT 1.03 1.58 y 13C-1,2,3,7,8-PeCDD 2.31e+08 33:18 У 100.00 19 IS 1.04 100.00 1.64e+08 1.27 y 38:39 У 20 IS 13C-1,2,3,4,7,8-HxCDD 1_02 100.00 1.60e+08 1.26 y 38:49 У 13C-1,2,3,6,7,8-HxCDD 21 TS 0.846 100.00 1.33e+08 1.04 y 44:14 У 13c-1,2,3,4,6,7,8-HpCDD 22 IS 0.719 13C-OCDD 200.00 2.26e+08 0.88 y49:46 23 IS 0.998 13C-2,3,7,8-TCDF 100.00 3.40e+08 0.80 y 26:44 24 IS 1.58 y 0.805 2.74e+08 31:33 У 13C-1,2,3,7,8-PeCDF 100.00 25 IS 0.952 100.00 3.24e+08 1.59 y 32:52 У 13C-2,3,4,7,8-PeCDF 26 IS 100.00 2.02e+08 0.52 y 37:15 1.28 У 13C-1,2,3,4,7,8-HxCDF 27 IS 2.03e+08 0.52 y 37:28 1.29 У 13C-1,2,3,6,7,8-HxCDF 100.00 28 IS 1.77e+08 0.52 y38:23 1.12 У 100.00 13C-2,3,4,6,7,8-HxCDF 29 IS 1.24 100.00 1.96e+08 0.52 y39:49 У 13C-1,2,3,7,8,9-HxCDF 30 IS 1.05 100.00 1.65e+08 0.44 y42:20 У 13C-1,2,3,4,6,7,8-HpCDF 31 IS 0.43 y45:09 0.958 У 13C-1,2,3,4,7,8,9-HpCDF 100.00 1.51e+08 IS 32 13C-OCDF 200.00 3.16e+08 0.89 y50:09 1.00 У 33 IS 27:30 0.657 37CL-2,3,7,8-TCDD 2.00 2.95e+06 34 C/Up 0.81 y 26:55 2.25e+06 n 13C-1,2,3,4-TCDD 100.00 2.25e+08 35 RS 0.79 y 25:39 3.41e+06 n 100.00 3.41e+08 13c-1,2,3,4-TCDF 36 RS 1.57e+06 1.23 y 39:15 13C-1,2,3,7,8,9-HxCDD 100.00 1.57e+08 37 RS/RT 1.13 У Total Tetra-Dioxins 0.00 38 Tot 0,681 0.00 - n У Total Penta-Dioxins 39 Tot - n 0.814 0.00 У Total Hexa-Dioxins 40 Tot 0,869 - n Total Hepta-Dioxins 0.00 41 Tot 0.965 У 0.00 - n 42 Total Tetra-Furans Tot 0.791 0.00 - n У 1st Fn. Tot Penta-Furans 43 Tot 0.791 Total Penta-Furans 0.00 - n У 44 Tot 0.926 0.00 - n У Total Hexa-Furans 45 Tot 0.975 0.00 - n У Total Hepta-Furans 46 Tot

Analyst: ______ Date: 1055/06

Acquired: 24-OCT-06 11:10:51 Cal: PCDDFAL3-10-24-06 Filename 240CT06M S: 1 Run #4 FAL ID: 1613 CS3 061011J Client ID: ST102406M3 Analyte: Amount Resp RA RT RF RRF Name Тур 2,3,7,8-TCDD 0.77 y 1.23 27:28 10.00 1.65e+07 1 link 1.59 y 0.714 5.27e+07 33:19 У 1,2,3,7,8-PeCDD 50.00 link 2 0.983 50.00 5.59e+07 1.26 y 38:39 У 1,2,3,4,7,8-HxCDD 3 Unk 0.841 У 1,2,3,6,7,8-HxCDD 50.00 4.58e+07 1.27 y 38:49 4 Unk 0.777 У 50.00 4.33e+07 1.27 y 39:16 5 Unk 1,2,3,7,8,9-HxCDD 0.927 У 50.00 4.11e+07 1.05 y 44:15 1,2,3,4,6,7,8-HpCDD 6 link 0.87 y 49:47 1.07 У 100.00 7.71e+07 7 OCDD Unk 0.980 0.78 y 26:42 У 8 Unk 2,3,7,8-TCDF 10.00 2.06e+07 0.859 1.58 y 31:35 У 1,2,3,7,8-PeCDF 50.00 7.60e+07 9 Unk 0.796 1.57 y 32:54 У 50.00 8.09e+07 10 Unk 2,3,4,7,8-PeCDF 0.916 50.00 6.45e+07 1.27 y 37:17 У 11 Unk 1,2,3,4,7,8-HxCDF 1.06 1,2,3,6,7,8-HxCDF 50.00 7.58e+07 1.23 y 37:28 У Unk 12 0.984 У 13 Unk 2,3,4,6,7,8-HxCDF 50.00 6.09e+07 1.26 y 38:25 0.920 1.27 y У 39:50 14 Unk 1,2,3,7,8,9-HxCDF 50.00 6.27e+07 1.02 У 1.04 y 42:20 1,2,3,4,6,7,8-HpCDF 50.00 6.02e+07 15 Unk 1.04 y 45:08 1.01 У 1,2,3,4,7,8,9-HpCDF 50.00 5.13e+07 16 Unk 0.870 У 0.92 y 50:09 OCDF 100.00 8.72e+07 17 Unk 0.951 0.78 y У 27:26 1.35e+08 18 IS/RT 13C-2,3,7,8-TCDD 100.00 1.04 1.57 y 33:17 V 1.47e+08 13C-1,2,3,7,8-PeCDD 100.00 19 IS 1.27 y 38:39 1.06 ٧ 13C-1,2,3,4,7,8-HxCDD 100.00 1.14e+08 20 IS 1.02 1.28 y 38:49 v 100.00 1.09e+08 21 IS 13C-1,2,3,6,7,8-HxCDD 0.830 1.06 y 100.00 8.87e+07 44:13 ν 22 IS 13c-1,2,3,4,6,7,8-HpCDD 0.676 0.89 y 49:45 ٧ 23 13C-OCDD 200.00 1.45e+08 IS 0.79 y 0.984 26:41 13C-2,3,7,8-TCDF 100.00 2.10e+08 24 IS 1.57 y 31:33 0.829 v 100.00 1.77e+08 25 IS 13C-1,2,3,7,8-PeCDF 0.953 100.00 2.03e+08 1.58 y 32:52 26 13C-2,3,4,7,8-PeCDF IS 1.32 27 13C-1,2,3,4,7,8-HxCDF 100.00 1.41e+08 0.52 y37:15 IS 1.34 100.00 1.43e+08 0.52 y 37:27 28 IS 13C-1,2,3,6,7,8-HxCDF 1.16 100.00 1.24e+08 0.52 y38:23 29 13C-2,3,4,6,7,8-HxCDF IS 1.27 У 30 13C-1,2,3,7,8,9-HxCDF 100.00 1.36e+08 0.52 y39:49 IS 1.10 У 13C-1,2,3,4,6,7,8-HpCDF 100.00 1.18e+08 0.43 y42:20 31 IS 0.949 13C-1,2,3,4,7,8,9-HpCDF 100.00 1.01e+08 0.44 y45:08 У 32 IS 0.937 33 IS 13C-OCDF 200.00 2.00e+08 0.89 y50:08 У 0.652 27:28 10.00 9.23e+06 34 C/Up 37C1-2,3,7,8-TCDD 1.41e+06 n 100.00 1.41e+08 0.79 y26:51 35 RS 13C-1,2,3,4-TCDD 100.00 2.13e+08 0.80 y 25:35 2.13e+06 n 13C-1,2,3,4-TCDF 36 RS 100.00 1.07e+08 1.26 y 39:15 1.07e+06 37 RS/RT 13c-1,2,3,7,8,9-HxCDD 1.23 Total Tetra-Dioxins 0.00 У 38 Tot 0.714 30 Total Penta-Dioxins 0.00 У Tot 0.868 0.00 У 40 Total Hexa-Dioxins Tot 0.927 У ₹ 41 0.00 Tot Total Hepta-Dioxins - n 0.980 У 0.00 42 Total Tetra-Furans Tot 0.825 - n У 1st Fn. Tot Penta-Furans 0.00 43 Tot - n 0.825 У 44 Tot Total Penta-Furans 0.00 0.970 45 Total Hexa-Furans 0.00 - n у Tot

Total Hepta-Furans

46

Tot

0.00

Analyst:

- n

Date: 10/35/06

1.02

Filename 240CT06M Run #5 S: 5 Acquired: 24-0CT-06 14:52:28 Cal: PCDDFAL3-10-24-06 Client ID: ST102406M4 FAL ID: 1613 CS4 061011K Analyte: RRF Тур Name Amount Resp RA RT PF 0.78 y 1 Unk 2,3,7,8-TCDD 40.00 7.72e+07 27:29 1.21 У 1.59 y 200.00 0.744 Unk 1,2,3,7,8-PeCDD 2.74e+08 33:18 2 У 1.28 y 3 Unk 200.00 2.96e+08 38:40 0.985 1,2,3,4,7,8-HxCDD У 200.00 2.42e+08 1.23 y 38:50 0.859 4 Unk 1,2,3,6,7,8-HxCDD У 1.26 y 5 Unk 1,2,3,7,8,9-HxCDD 200.00 2.26e+08 39:17 0.775 У 1,2,3,4,6,7,8-HpCDD 200.00 2.12e+08 1:03 y 44:15 0.938 6 Unk У Unk OCDD 400.00 3.82e+08 0.89 y 49:47 1.09 У 8 Unk 2,3,7,8-TCDF 40.00 1.02e+08 0.78 y 26:44 1.02 У 3.74e+08 31:34 0.877 9 Unk 1,2,3,7,8-PeCDF 200.00 1.57 y У 10 Unk 2,3,4,7,8-PeCDF 200.00 4.35e+08 1.57 y 32:54 0.833 У 0.939 11 Unk 1,2,3,4,7,8-HxCDF 200.00 3.33e+08 1.25 y 37:16 ٧ 12 Unk 1,2,3,6,7,8-HxCDF 200.00 3.93e+08 1.25 y 37:29 1.08 ν 13 Unk 2,3,4,6,7,8-HxCDF 200.00 3.25e+08 1.25 y 38:25 1.02 ν 14 Unk 1,2,3,7,8,9-HxCDF 200.00 3.50e+08 1.26 y 39:51 0.953 γ 1.05 200.00 3.07e+08 15 Unk 1,2,3,4,6,7,8-HpCDF 1.04 y 42:21 ٧ 200.00 2.76e+08 1.04 y 45:09 1.05 16 link 1,2,3,4,7,8,9-HpCDF У 400.00 4.32e+08 0.90 y 50:10 0.887 17 Unk OCDF 0.79 y 18 IS/RT 13C-2,3,7,8-TCDD 100.00 1.60e+08 27:28 0.946 19 13C-1,2,3,7,8-PeCDD 100.00 1.84e+08 1.58 y 33:17 1.09 IS У 100.00 1.50e+08 1.28 y 38:39 1.03 20 IS 13C-1,2,3,4,7,8-HxCDD У 100.00 1.41e+08 1.27 y 38:49 0.965 21 TS 13C-1,2,3,6,7,8-HxCDD У 100.00 1.13e+08 0.774 22 IS 13C-1,2,3,4,6,7,8-HpCDD 1.04 y 44:14 У 23 IS 13C-OCDD 200.00 1.75e+08 0.89 y 49:47 0.599 У 24 100.00 2.52e+08 0.79 y 0.968 IS 13C-2,3,7,8-TCDF 26:43 У 25 100.00 1.57 y 0.818 IS 13C-1,2,3,7,8-PeCDF 2.13e+08 31:33 y 26 100.00 1.00 IS 13C-2,3,4,7,8-PeCDF 2.61e+08 1.58 y 32:52 У 27 IS 13C-1,2,3,4,7,8-HxCDF 100.00 1.77e+08 0.53 y37:16 1.22 У 100.00 28 IS 13C-1,2,3,6,7,8-HxCDF 1.81e+08 0.52 y37:27 1.24 ν 29 100.00 1.09 IS 13C-2,3,4,6,7,8-HxCDF 1.59e+08 0.52 y38:24 ٧ 30 TS 13C-1,2,3,7,8,9-HxCDF 100.00 1.83e+08 0.52 y 39:50 1.26 ٧ 31 IS 13C-1,2,3,4,6,7,8-HpCDF 100.00 1.47e+08 0.44 y42:20 1.00 У 13C-1,2,3,4,7,8,9-HpCDF 0.44 y 32 IS 100.00 1.32e+08 45:08 0.902 У 33 IS 13C-OCDF 200.00 2.44e+08 0.89 y 50:09 0.835 ν 27:29 0.686 34 C/Up 37Cl-2,3,7,8-TCDD 40.00 4.640+07 У 0.80 y 35 RS 13C-1,2,3,4-TCDD 100.00 1.69e+08 26:53 1.69e+06 n 25:37 2.60e+06 36 RS 13C-1,2,3,4-TCDF 100.00 2.60e+08 0.80 y n 1.25 y 37 RS/RT 13C-1,2,3,7,8,9-HxCDD 100.00 1.46e+08 39:16 1.46e+06 38 Tot Total Tetra-Dioxins 0.00 n 1.21 ν 39 Tot Total Penta-Dioxins 0.00 - n 0.744 У - ' n 40 Tot Total Hexa-Dioxins 0.00 0.874 У 0.938 41 Tot Total Hepta-Dioxins 0.00 - n 42 Tot Total Tetra-Furans 0.00 1.02 43 Tot 1st Fn. Tot Penta-Furans 0.00 0.853 У 44 Tot Total Penta-Furans 0.00 - n 0.853 У 45 0.00 1.000 Total Hexa-Furans Tot - n У 0.00 46 Total Hepta-Furans 1.05 Tot У

Analyst:

Date: 10/25/06

						*			
	Тур	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	2,3,7,8-TCDD	200.00	5.90e+08	0.79 y	27:31		1.21	у
2	Unk	1,2,3,7,8-PeCDD	1000.00	1.94e+09	1.57 y	33:19	· _	0.738	У.
3	Unk	1,2,3,4,7,8-HxCDD	1000.00	1.98e+09	1.25 y	38:41	-	0.956	У
4	Unk	1,2,3,6,7,8-HxCDD	1000.00	1.55e+09	1.25 y	38:50	-	0.821	y
5	Unk	1,2,3,7,8,9-HxCDD	1000.00	1.49e+09	1.25 y	39:17	_	0.754	y
6	Unk	1,2,3,4,6,7,8-HpCDD	1000.00	1.49e+09	1.05 y	44:15		0.919	y
7	Unk	OCDD	2000.00	3.01e+09	0.89 y	49:50	_	1.07	ý
		•							,
8	Unk	2,3,7,8-TCDF	200.00	7.74e+08	0.78 y	26:46	•	1.02	ÿ
9	Unk	1,2,3,7,8-PeCDF	1000.00	2.75e+09	1.57 y	31:36		0.859	У
10	Unk	2,3,4,7,8-PeCDF	1000.00	3.04e+09	1.55 y	32:55		0.822	У
11	Unk	1,2,3,4,7,8-HxCDF	1000.00	2.07e+09	1.25 y	37:17	-	0.898	У
12	Unk	1,2,3,6,7,8-HxCDF	1000.00	2.36e+09	1.25 y	37:29	-	1.04	У
13	Unk	2,3,4,6,7,8-HxCDF	1000.00	2.00e+09	1.25 y	38:25	-	0.994	У
14	Unk	1,2,3,7,8,9-HxCDF	1000.00	2.19e+09	1.23 y	39:51	-	0.905	У
15	Unk	1,2,3,4,6,7,8-HpCDF	1000.00	2.01e+09	1.04 y	42:22	-	1.01	У
16	Unk	1,2,3,4,7,8,9-HpCDF	1000.00	1.84e+09	1.04 y	45:10	-	0.996	У
17	Unk	OCDF	2000.00	3.28e+09	0.90 y	50:12	-	0.857	У
18	IS/RT	13C-2,3,7,8-TCDD	100.00	2.44e+08	0.78 y	27:30	-	0.985	у
19	IS	13C-1,2,3,7,8-PeCDD	100.00	2.62e+08	1.59 y	33:18	-	1.06	у
20	IS	13C-1,2,3,4,7,8-HxCDD	100.00	2.07e+08	1.27 y	38:39	<u>-</u>	1.06	у
21	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.89e+08	1.26 y	38:50	· -	0.974	у
22	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.62e+08	1.05 y	44:14	· -	0.833	y
23	IS	13C-OCDD	200.00	2.81e+08	0.89 y	49:48	-	0.724	ý
						•			•
24	IS	13C-2,3,7,8-TCDF	100.00	3.78e+08	0.79 y	26:45	-	1.01	У
25	IS	13C-1,2,3,7,8-PeCDF	100.00	3.20e+08	1.58 y	31:34	<u>-</u>	0.858	У
26	IS	13C-2,3,4,7,8-PeCDF	100.00	3.69e+08	1.57 y	32:53		0.990	У
27	IS	13C-1,2,3,4,7,8-HxCDF	100.00	2.31e+08	0.52 y	37:16	-	1.19	У
28	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.27e+08	0.53 y	37:28	-	1.17	У
29	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.02e+08	0.53 y	38:24	-	1.04	y ʻ
30	IS	13C-1,2,3,7,8,9-HxCDF	100.00	2.42e+08	0.52 y	39:50	· -	1.25	У
31	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	2.00e+08	0.45 y	42:20	- ,	1.03	У
32	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1:84e+08	0.44 y	45:08	-	0.950	у
33	IS	13C-OCDF	200.00	3.83e+08	0.90 y	50:11		0.986	ý.
34	C/Up	37cl-2,3,7,8-TCDD	200.00	3.54e+08		27:31	-	0.715	у
35	RS	13C-1,2,3,4-TCDD	100.00	2.48e+08	0.80 y	26:56	2.48e+06	-	n.
36	RS	13C-1,2,3,4-TCDF	100.00	3.73e+08	0.80 y	25:40	3.73e+06	_	n
37	RS/RT		100.00	1.94e+08	1.27 y	39:16	1.94e+06	-	n
38	Tot	Total Tetra-Dioxins	0.00	_	- n			1.21	у.
39	Tot	Total Penta-Dioxins	0.00	-	- n	<u>.</u>	-	0.738	
40	Tot	Total Hexa-Dioxins	0.00	_	- n	_	· <u>-</u>	0.846	y
41	Tot	Total Hepta-Dioxins	0.00	_		_	_	0.919	У
71	101	Total nepta brokins	~		- n	-		0.717	y
42	Tot	Total Tetra-Furans	0.00	-	- n	-	, -	1.02	у
43	Tot	1st Fn. Tot Penta-Furans	0.00	•	- n	-	-	0.839	У
44	Tot	Total Penta-Furans	0.00	-	- n	-		0.839	У
45	Tot	Total Hexa-Furans	0.00	-	- n	-	-	0.958	у
46	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.00	У

Analyst:

Date: 105/106

7DFA - Form VII-HR CDD-1 CDD/CDF CONTINUING CALIBRATION SUMMARY HIGH RESOLUTION

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

by placing an asterik in the appropriate flag column

TO NO.:

SDG NO.:

GC COLUMN: DB5

ID: 0.25 (mm)

INSTRUMENT ID: FAL3

LAB FILE ID: 260CT06M

Sam: 1

DATE ANALYZED: 26-OCT-06

TIME ANALYZED: 12:59:49

INIT. CALIB. TIMES: 12	2:00:14		I N MEAN	II. CALIB.	DATE(S): 24-	001-06	ION	
	SELECTED	RR/	RR/	%D	%D	ION	RATIO	ION RATIO
TARGET ANALYTES	IONS	RRF	RRF	,,,,,	FLAG	RATIO	FLAG	QC LIMITS
2,3,7,8-TCDD	320/322	1.17	1.19	-1.96	7 2313	0.76		0.65-0.89
2,3,7,8-TCDF	304/306	1.05	0.972	8.32		0.79		0.65-0.89
1,2,3,7,8-PeCDF	340/342	0.877	0.821	6.82	-	1.54		1.32-1.78
1,2,3,7,8-PeCDD	356/358	0.706	0.694	1.71		1.55		1.32-1.78
2,3,4,7,8-PeCDF	340/342	0.819	0.778	5.31		1.55		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	0.921	0.900	2.32		1.25		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	1.04	1.02	1.55		1.25		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	0.927	0.942	-1.68		1.24	ı	1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	0.838	0.813	3.04		1.23		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	0.780	0.743	4.96		1.26		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	0.977	0.969	0.822		1.25		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	0.921	0.894	3.01		1.24		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.04	0.994	4.69		1.04		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	0.933	0.891	4.70		1.07		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	1.03	0.981	4.60		1.03		0.88-1.20
OCDD	458/460	1.05	1.03	1.84		0.87		0.76-1.02
OCDF	442/444	0.865	0.842	2.79		0.91		0.76-1.02
LABELED COMPOUNDS								
13C-2,3,7,8-TCDD	332/334	0.947	0.948	-0.141		0.79		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	1.05	1.06	-0.921		1.57		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	1.02	1.05	-3.04		1.26		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	0.987	0.996	-0.945		1.25		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	436/438	0.812	0.822	-1.23		1.07		0.88-1.20
13c-ocdd	470/472	0.664	0.681	-2.45		0.89		0.76-1.02
13C-2,3,7,8-TCDF	316/318	0.924	0.984	-6.18		0.78		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	0.842	0.829	1.58		1.56		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.01	0.974	3.76		1.57		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/386	1.17	1.28	-8.80		0.52		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	1.25	1.29	-3.21		0.52		0.43-0.59
13C-1,2,3,7,8,9-HxCDF	384/386	1.17	1.27	-7.24		0.52		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	1.08	1.12	-4.20		0.52		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	1.03	1.06	-2.85		0.44		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.893	0.944	-5.43		0.44		0.37-0.51
13C-OCDF	454/456	0.894	0.948	-5.69		0.90		0.76-1.02
CLEAN-UP	•							
37Cl-2,3,7,8-TCDD	328/NA	0.686	0.653	5.11		NA	NA	NA
INTERNAL STANDARDS								
13C-1,2,3,4-TCDD	332/334	NA	NA	NA	NA	0.80		0.65-0.89
13C-1,2,3,4-TCDF	316/318	NA	NA	NA	NA	0.80		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	NA.	NA	NA	NA	1.30		1.05-1.43

7DFA - FORM VII-HR CDD-1 CDD/CDF CONTINUING CALIBRATION SUMMARY HIGH RESOLUTION

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

for Percent Difference (%D) or ion abundance ratio

by placing an asterik in the appropriate flag column

TO NO.:

SDG NO.:

GC COLUMN: DB5

ID: 0.25 (mm)

INSTRUMENT ID: FAL3

LAB FILE ID: 260CT06M Sam: 11 DATE ANALYZED: 26-OCT-06 TIME ANALYZED: 22:13:25

INIT. CALIB. TIMES: 1	12:06:14		IN	IT. CALIB.	DATE(S): 24-0	OCT-06		
			MEAN				ION	
	SELECTED	RR/	RR/	%D	%D	ION	RATIO	ION RATIO
TARGET ANALYTES	IONS	RRF	RRF		FLAG	RATIO	FLAG	QC LIMITS
2,3,7,8-TCDD	320/322	1.23	1.19	3.00		0.79		0.65-0.89
2,3,7,8-TCDF	304/306	1.04	0.972	7.03		0.77		0.65-0.89
1,2,3,7,8-PeCDF	340/342	0.879	0.821	7.01		1.57		1.32-1.78
1,2,3,7,8-PeCDD	356/358	0.715	0.694	2.94		1.55		1.32-1.78
2,3,4,7,8-PeCDF	340/342	0.814	0.778	4.73		1.54		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	0.908	0.900	0.861		1.25		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	1.06	1.02	3.96		1.25		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	0.951	0.942	0.865		1.25		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	0.811	0.813	-0.216		1.26		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	0.801	0.743	7.74		1.27		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	1.01	0.969	4.64		1.23		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	0.934	0.894	4.54		1.24		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.03	0.994	3.96		1.03		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	0.912	0.891	2.36		1.04		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	1.03	0.981	5.29		1.05		0.88-1.20
OCDD	458/460	1.06	1.03	3.10		0.90		0.76-1.02
OCDF	442/444	0.865	0.842	2.78		0.93		0.76-1.02
LABELED COMPOUNDS								
13C-2,3,7,8-TCDD	332/334	0.942	0.948	-0.693		0.79		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	1.02	1.06	-3.34		1.58		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	1.02	1.05	-3.00		1.26		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	0.999	0.996	0.309		1.25		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	436/438	0.825	0.822	0.392		1.06		0.88-1.20
13C-OCDD	470/472	0.683	0.681	0.348		0.90		0.76-1.02
13C-2,3,7,8-TCDF	316/318	0.997	0.984	1.30		0.79		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	0.903	0.829	8.89		1.57		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.08	0.974	11.0		1.59		1.32-1.78
13c-1,2,3,4,7,8-HxCDF	384/386	1.22	1.28	-4.74		0.53		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	1.27	1.29	-1.45		0.52		0.43-0.59
13c-1,2,3,7,8,9-HxCDF	384/386	1.20	1.27	-5.51		0.53		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	1.10	1.12	-2.41		0.54		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	1.04	1.06	-1.30		0.44		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.929	0.944	-1.68		0.44		0.37-0.51
13C-OCDF	454/456	0.939	0.948	-0.970		0.88		0.76-1.02
CLEAN-UP								
37cl-2,3,7,8-TCDD	328/NA	0.666	0.653	2.03		NA	NA	NA
INTERNAL STANDARDS								
13C-1,2,3,4-TCDD	332/334	NA	NA	NA	NA	0.80		0.65-0.89
13C-1,2,3,4-TCDF	316/318	NA NA	NA	NA NA	NA	0.80		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	NA NA	NA NA	NA NA	NA NA	1.24		1.05-1.43
The laboratory must flag	•				NA.	1.47	*	
inc tuboratory must read	uniy undiyile			OI I EGI I G				

000121 of 000198

Date: 10/27/116

7DFB - Form VII-HR CDD-2 CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY HIGH RESOLUTION

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.: TO NO.:

SDG NO.:

GC COLUMN: DB5

ID: 0.25 (mm)

INSTRUMENT ID: FAL3

DATE ANALYZED: 26-OCT-06

TIME ANALYZED: 12:59:49

LAB FILE ID: 260CT06M Sam: 1

INIT. CALIB. TIMES: 12:06:14

INIT. CALIB. DATE(S): 24-OCT-06

TARGET ANALYTES	RRT	RT	
2,3,7,8-TCDD	1.001	27:23	
2,3,7,8-TCDF	1.001	26:37	
1,2,3,7,8-PeCDF	1.000	31:29	
1,2,3,7,8-PeCDD	1.000	33:13	
2,3,4,7,8-PeCDF	1.001	32:49	
1,2,3,4,7,8-HxCDF	1.001	37:11	
1,2,3,6,7,8-HxCDF	1.000	37:23	
1,2,3,4,7,8-HxCDD	1.001	38:35	
1,2,3,6,7,8-HxCDD	1.000	38:44	
1,2,3,7,8,9-HxCDD	1.012	39:11	
2,3,4,6,7,8-HxCDF	1.000	38:19	
1,2,3,7,8,9-HxCDF	1.001	39:45	
1,2,3,4,6,7,8-HpCDF	1.001	42:16	
1,2,3,4,6,7,8-HpCDD	1.001	44:10	
1,2,3,4,7,8,9-HpCDF	1.001	45:05	
OCDD	1.001	49:41	
OCDF	1.000	50:03	
LABELED COMPOUNDS	4 004	27.22	
13C-2,3,7,8-TCDD	1.021	27:22	
13C-1,2,3,7,8-PeCDD	1.240	33:12	
13C-1,2,3,4,7,8-HxCDD	0.985	38:33	
13C-1,2,3,6,7,8-HxCDD	0.989	38:43	
13C-1,2,3,4,6,7,8-HpCDD	1.127	44:08	
13C-OCDD	1.268	49:40	
13C-2,3,7,8-TCDF	0.993	26:36	
13C-1,2,3,7,8-PeCDF	1.175	31:29	
13C-2,3,4,7,8-PeCDF	1.224	32:48	
13C-1,2,3,4,7,8-HxCDF	0.949	37:10	
13C-1,2,3,6,7,8-HxCDF	0.954	37:22	
13C-1,2,3,7,8,9-HxCDF	1.015	39:44	
13c-2,3,4,6,7,8-HxCDF	0.978	38:1 9	
13C-1,2,3,4,6,7,8-HpCDF	1.079	42:14	
13C-1,2,3,4,7,8,9-HpCDF	1.150	45:03	
13C-OCDF	1.278	50:02	
CLEAN-UP STANDARD			
37Cl-2,3,7,8-TCDD	NA	27:23	
3100 2,3,1,0 1000	nA	21.25	
INTERNAL STANDARD			
13C-1,2,3,4-TCDD	NA	26:47	
13C-1,2,3,4-TCDF	NA	25:30	
13C-1,2,3,7,8,9-HxCDD	NA	39:10	
	a	1	
	Analyst:_		

Date: 10/27 /06

7DFB - Form VII-HR CDD-2 CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY HIGH RESOLUTION

LAB NAME: FRONTIER ANALYTICAL LAB CONTRACT:

LAB CODE: FALE CASE NO.: TO NO.: SDG NO.:

GC COLUMN: DB5

ID: 0.25 (mm) INSTRUMENT ID: FAL3

DATE ANALYZED: 26-OCT-06 TIME ANALYZED: 22:13:25

LAB FILE ID: 260CT06M Sam: 11

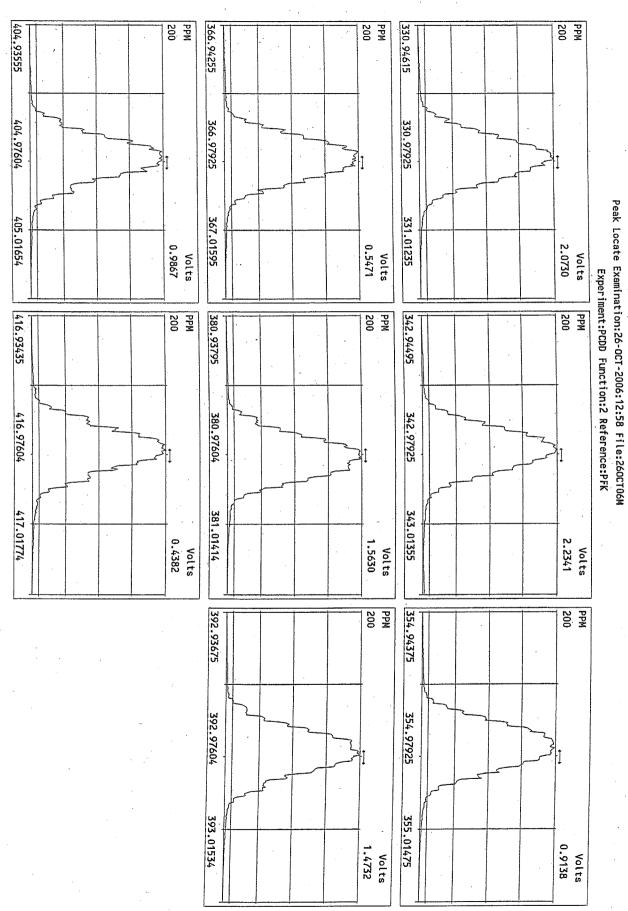
INIT. CALIB. TIMES: 12:06:14 INIT. CALIB. DATE(S): 24-OCT-06

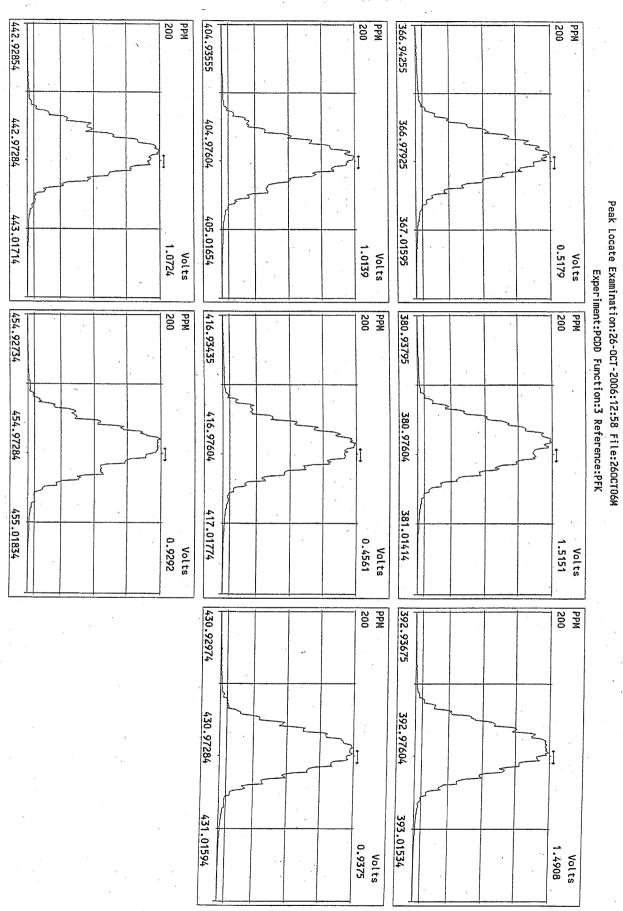
TARGET ANALYTES	RRT	RT	
2,3,7,8-TCDD	1.001	27:23	
2,3,7,8-TCDF	1.001	26:36	
1,2,3,7,8-PeCDF	1.000	31:29	
1,2,3,7,8-PeCDD	1.000	33:12	
2,3,4,7,8-PeCDF	1.000	32:48	
1,2,3,4,7,8-HxCDF	1.000	37:10	
1,2,3,4,7,8-HXCDF	1.001	37:10	
1,2,3,4,7,8-HXCDD	1.000	38:34	
	1.001	38:44	
1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD	1.012	39:10	
2,3,4,6,7,8-HxCDF	1.001	38:19	
		39:45	
1,2,3,7,8,9-HxCDF	1.001		
1,2,3,4,6,7,8-HpCDF	1.001	42:16	
1,2,3,4,6,7,8-HpCDD	1.000	44:09	
1,2,3,4,7,8,9-HpCDF	1.001	45:04	
OCDD	1.001	49:40	
OCDF	1.001	50:03	
LABELED COMPOUNDS	4 000	07.00	
13C-2,3,7,8-TCDD	1.022	27:22	
13C-1,2,3,7,8-PeCDD	1.240	33:12	
13C-1,2,3,4,7,8-HxCDD	0.985	38:33	
13C-1,2,3,6,7,8-HxCDD	0.988	38:43	
13C-1,2,3,4,6,7,8-HpCDD	1.127	44:08	
13C-OCDD	1.268	49:39	
13C-2,3,7,8-TCDF	0.993	26:35	
13C-1,2,3,7,8-PeCDF	1.175	31:28	
13C-2,3,4,7,8-PeCDF	1.225	32:47	
13C-1,2,3,4,7,8-HxCDF	0.949	37:10	
13C-1,2,3,6,7,8-HxCDF	0.954	37:21	
13C-1,2,3,7,8,9-HxCDF	1.014	39:43	
13C-2,3,4,6,7,8-HxCDF	0.978	38:18	
13C-1,2,3,4,6,7,8-НрСDF	1.079	42:14	
13C-1,2,3,4,7,8,9-HpCDF	1.150	45:02	
13C-OCDF	1.277	50:01	
CLEAN-UP STANDARD			
37Cl-2,3,7,8-TCDD	NA	27:23	
INTERNAL STANDARD			
13C-1,2,3,4-TCDD	NA	26:46	
13C-1,2,3,4-TCDF	NA	25:30	
13C-1,2,3,7,8,9-HxCDD	NA	39:10	
		1	
	Analyst:	1	Date: אורל אום
		~	

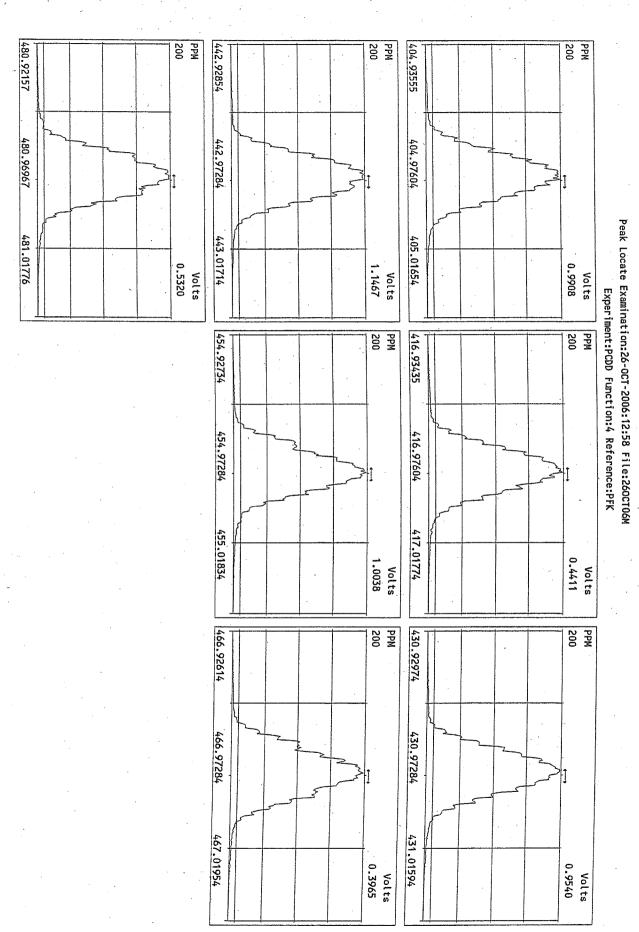
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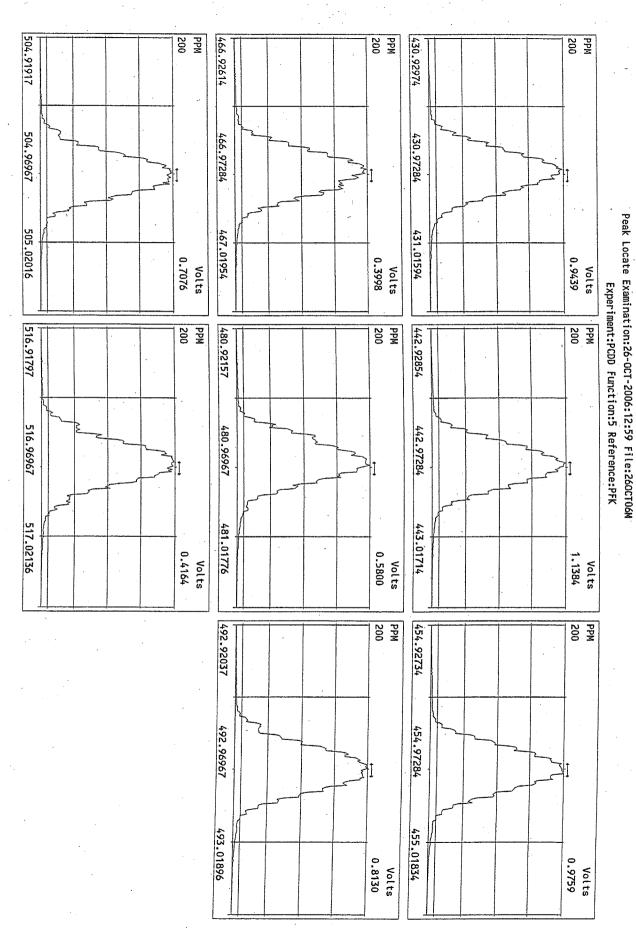
000124 of 000198

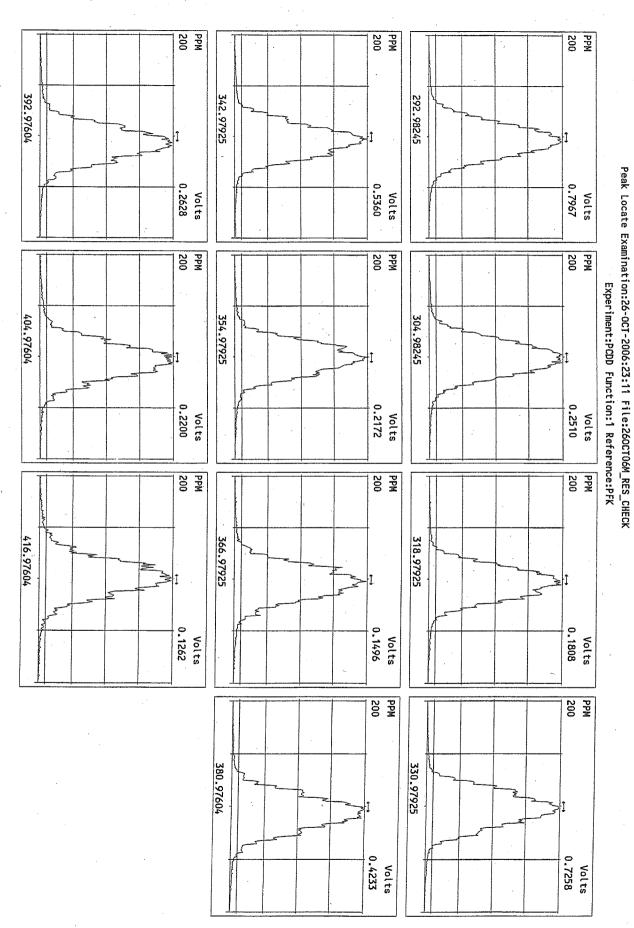
Peak Locate Examination:26-OCT-2006:12:57 File:260CT06M

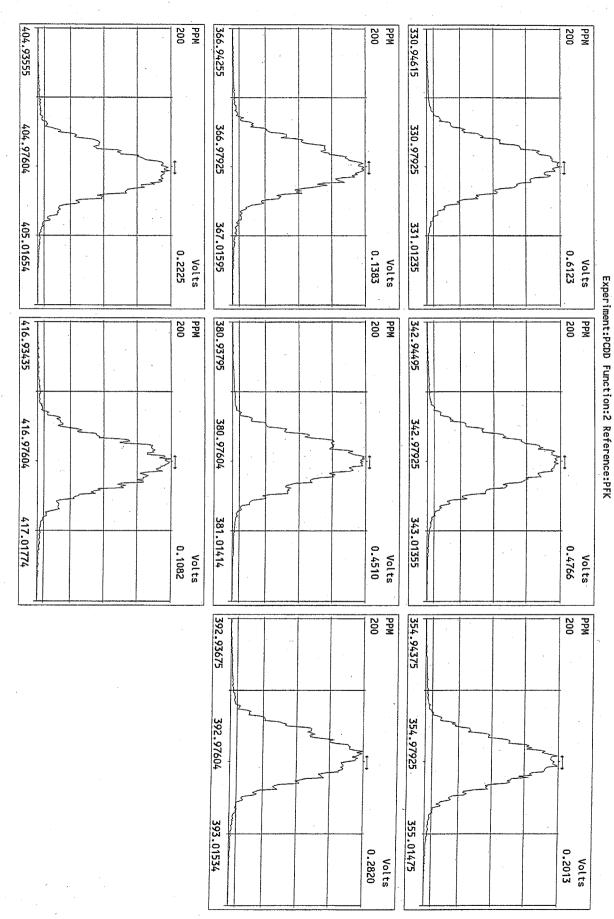






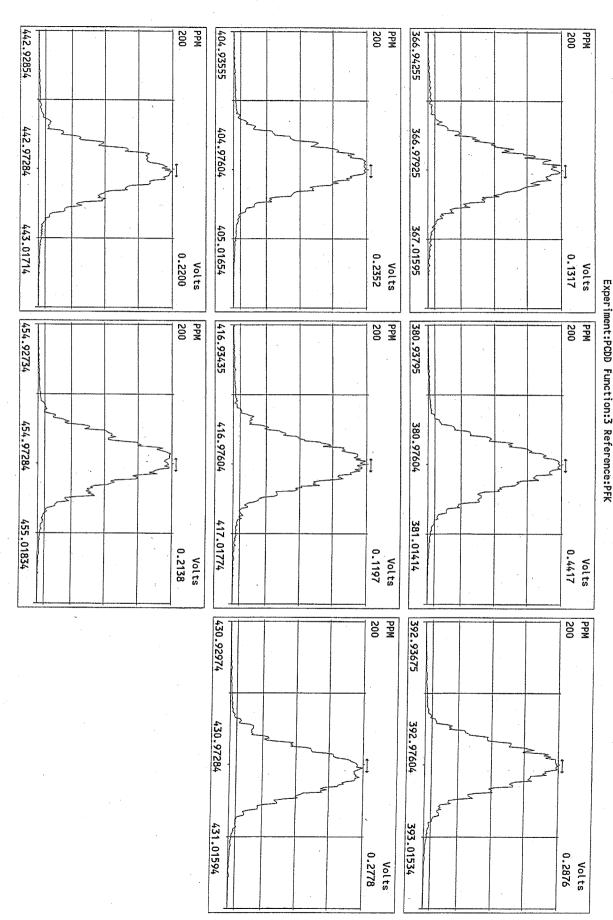




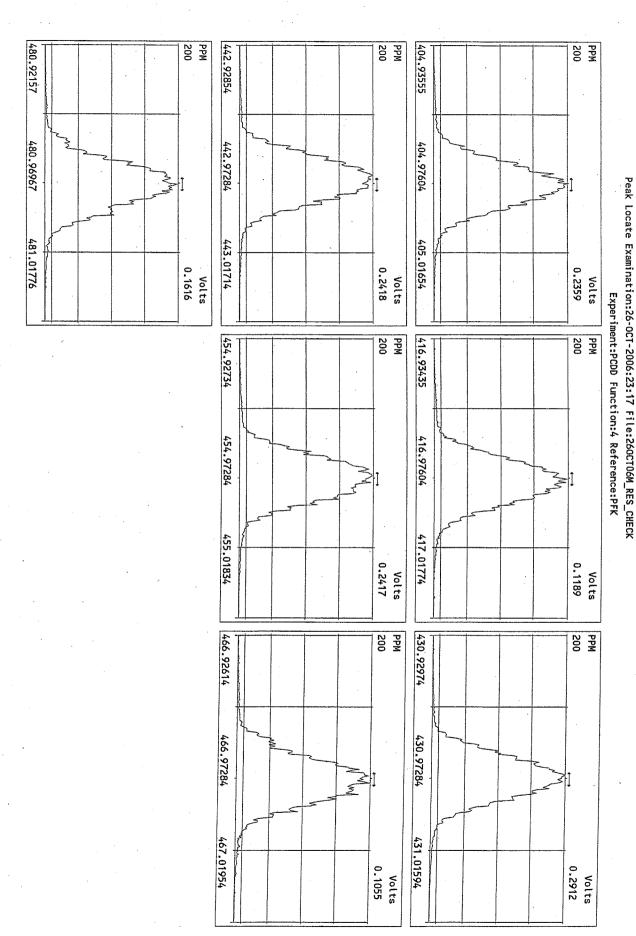


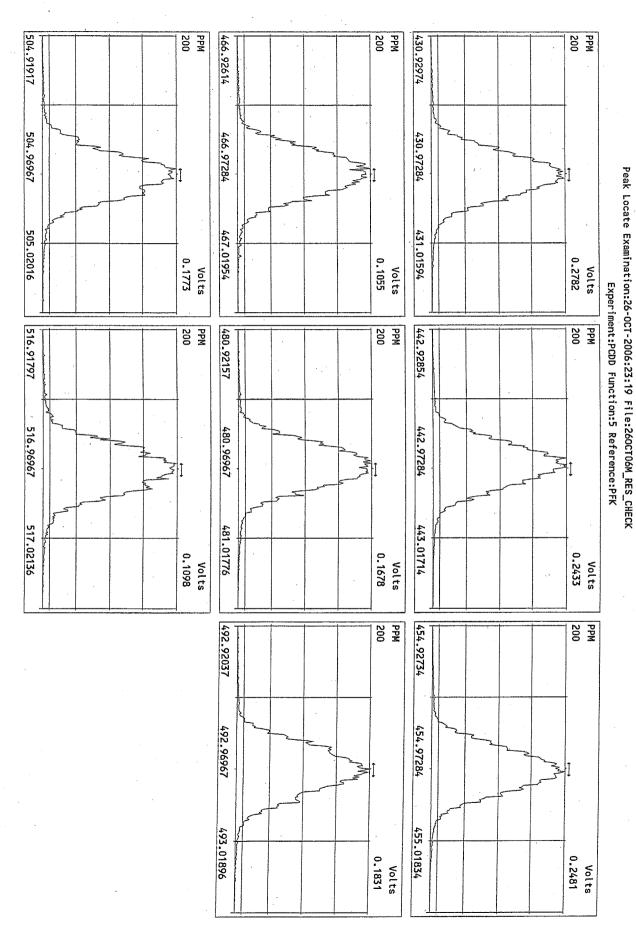
000130 of 000198

Peak Locate Examination:26-OCT-2006:23:13 File:26OCT06M_RES_CHECK

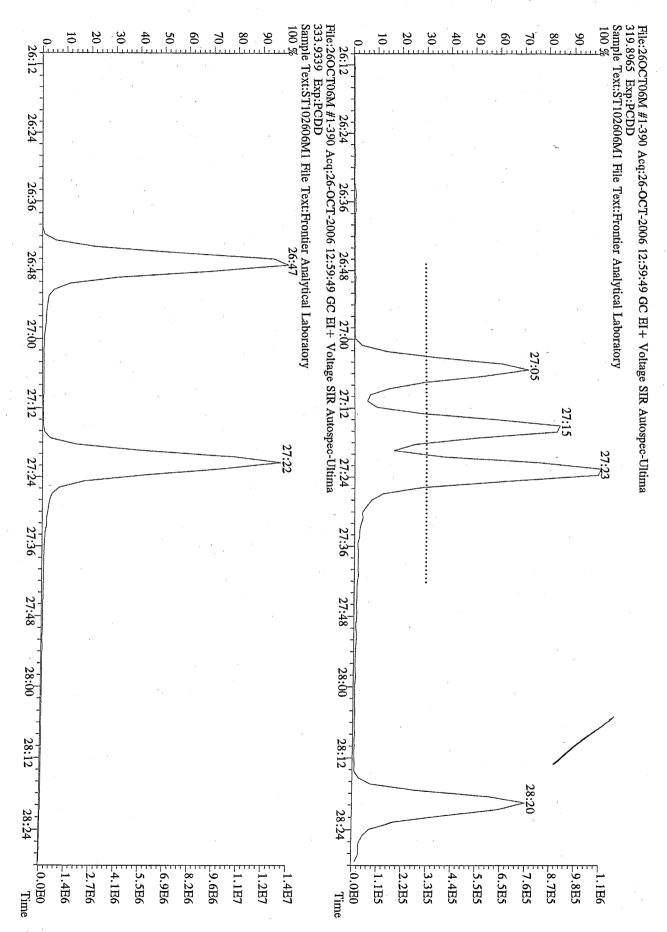


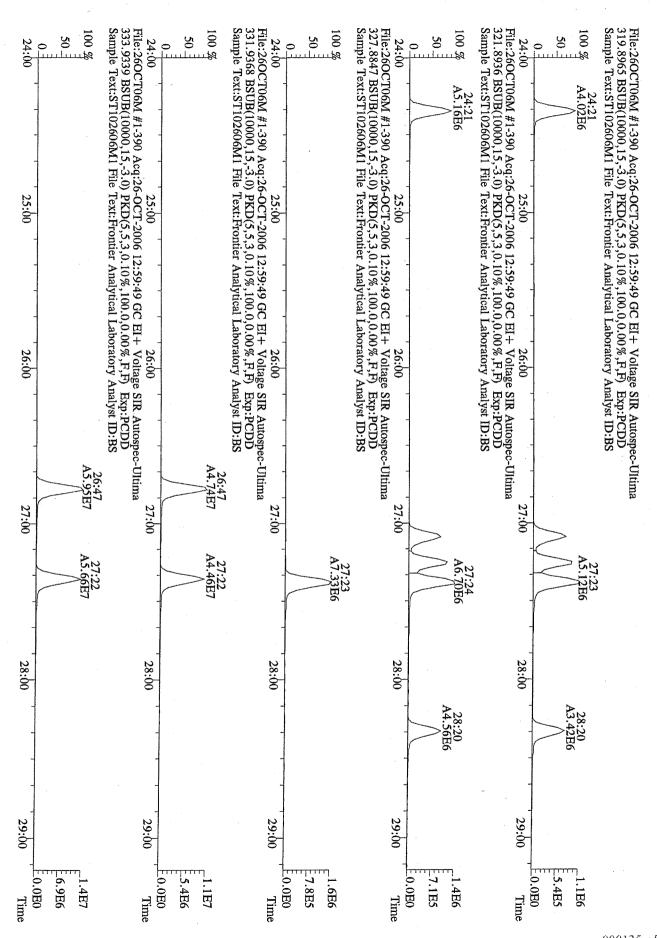
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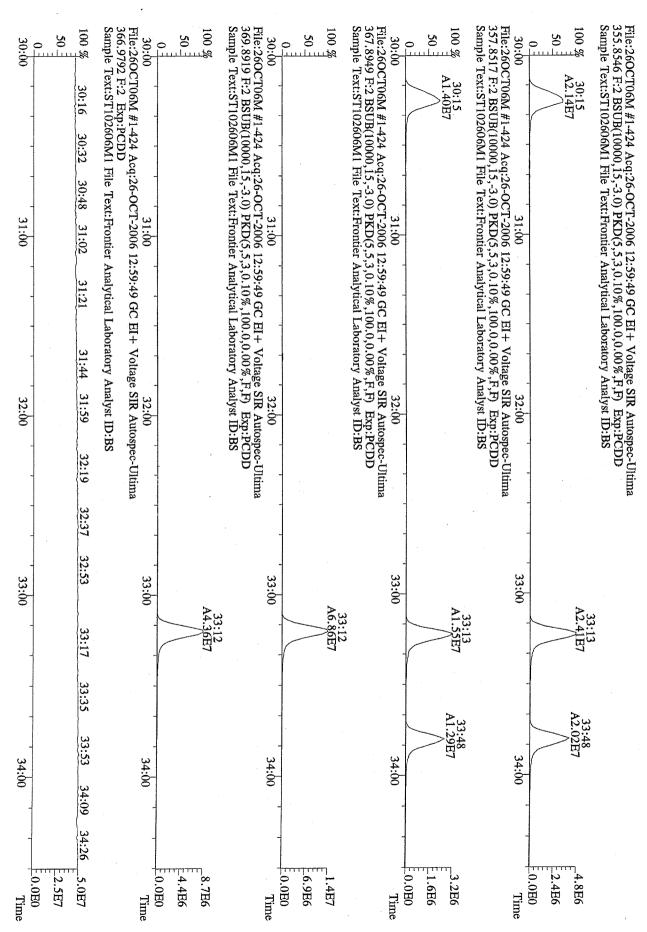


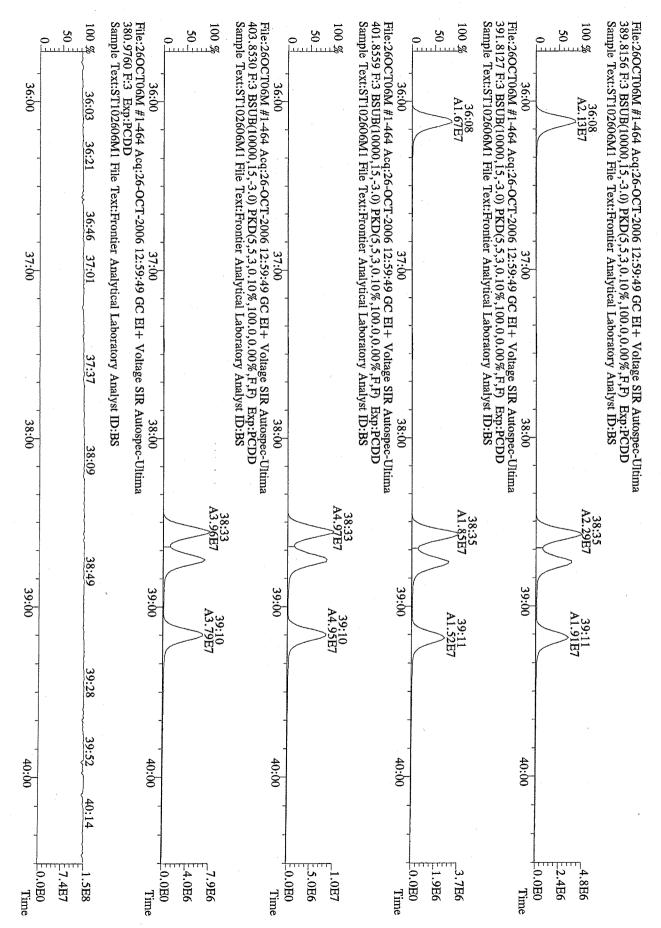


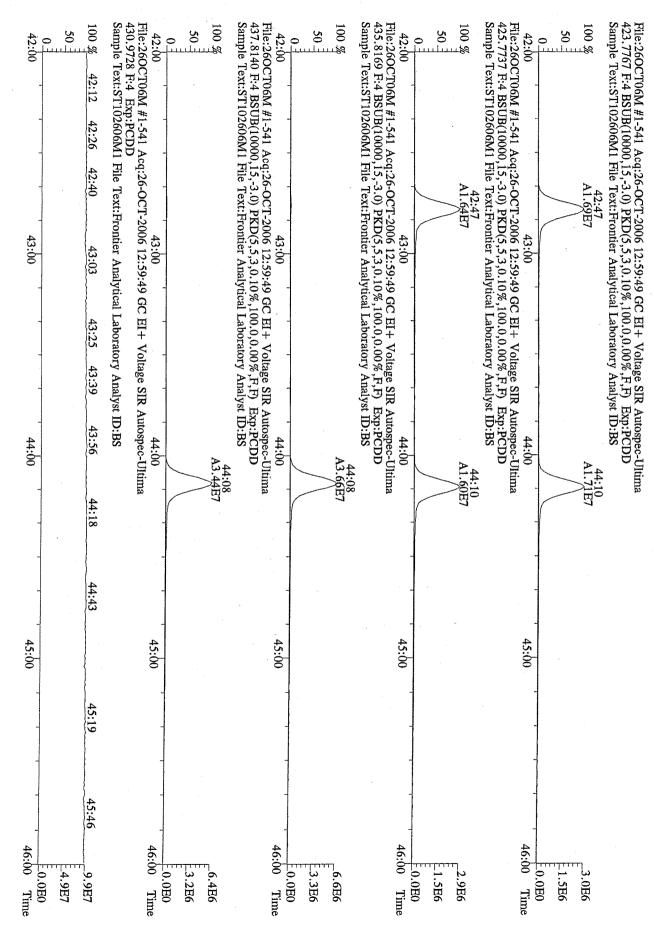
000133 of 000198

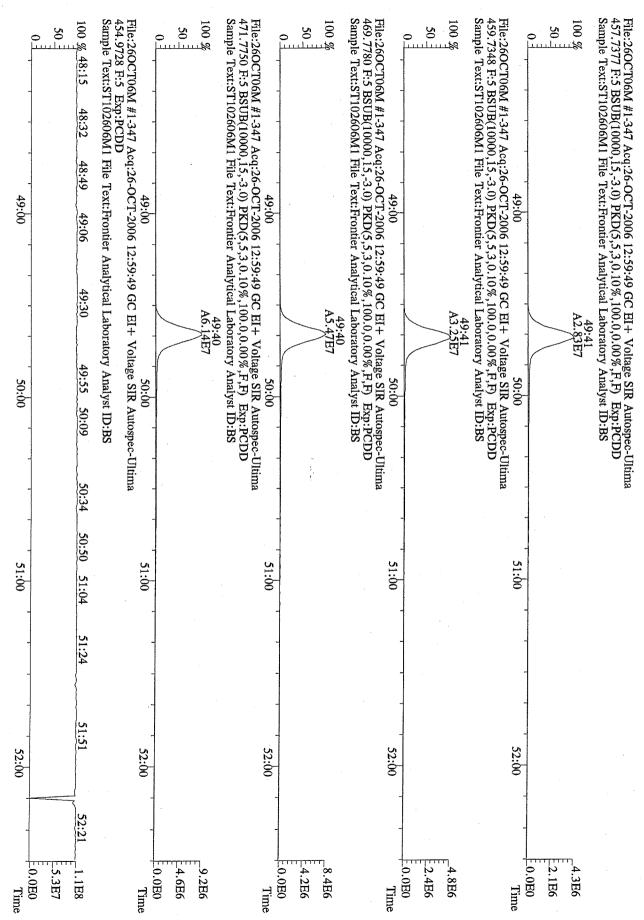


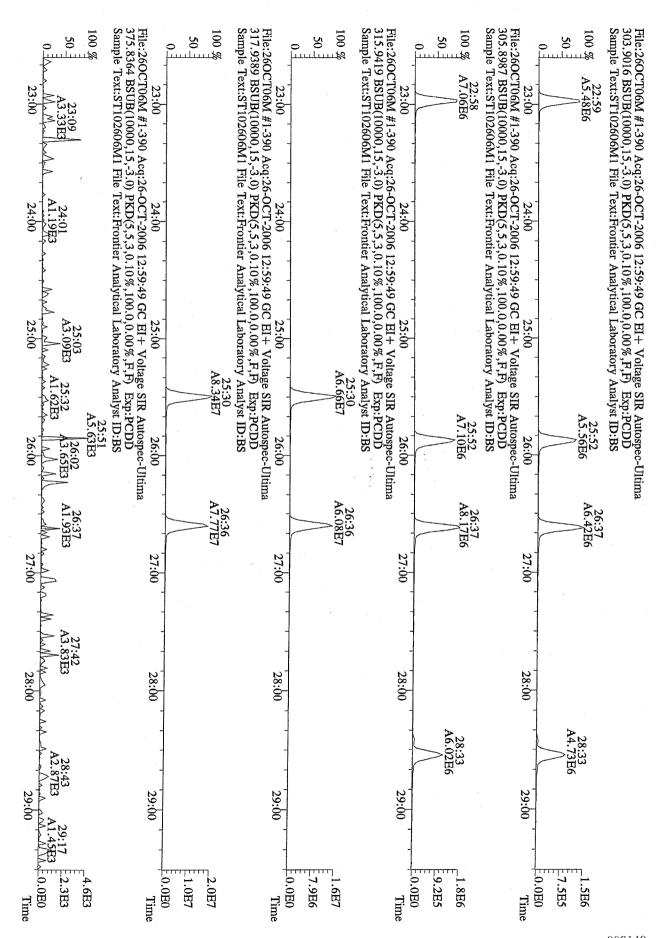


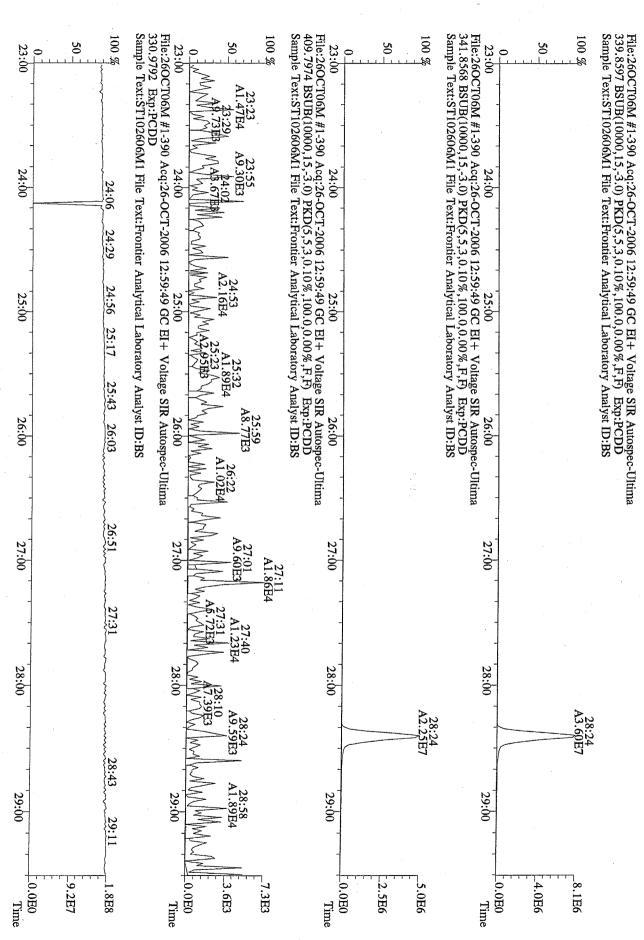


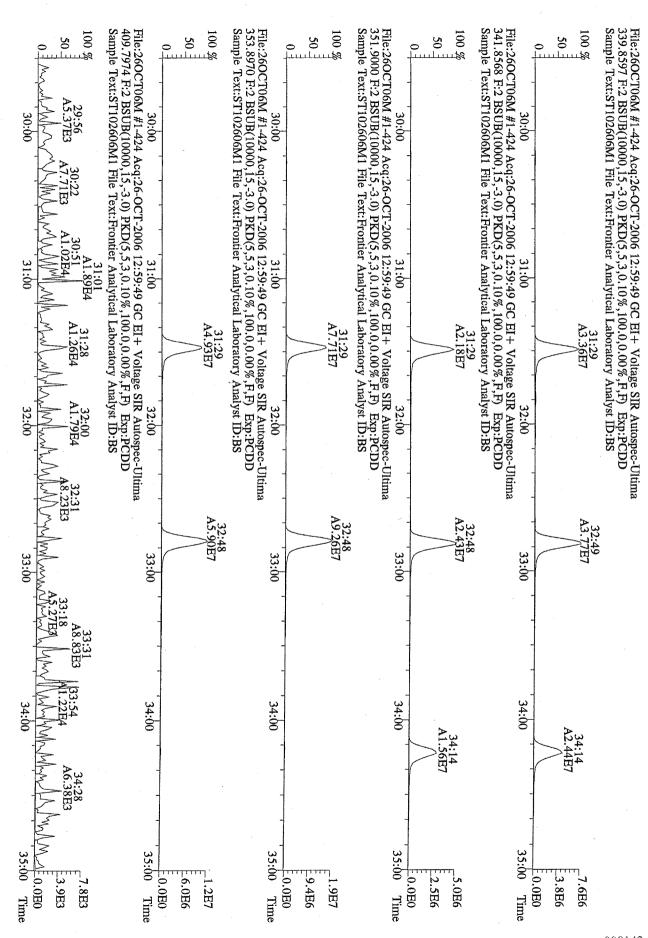


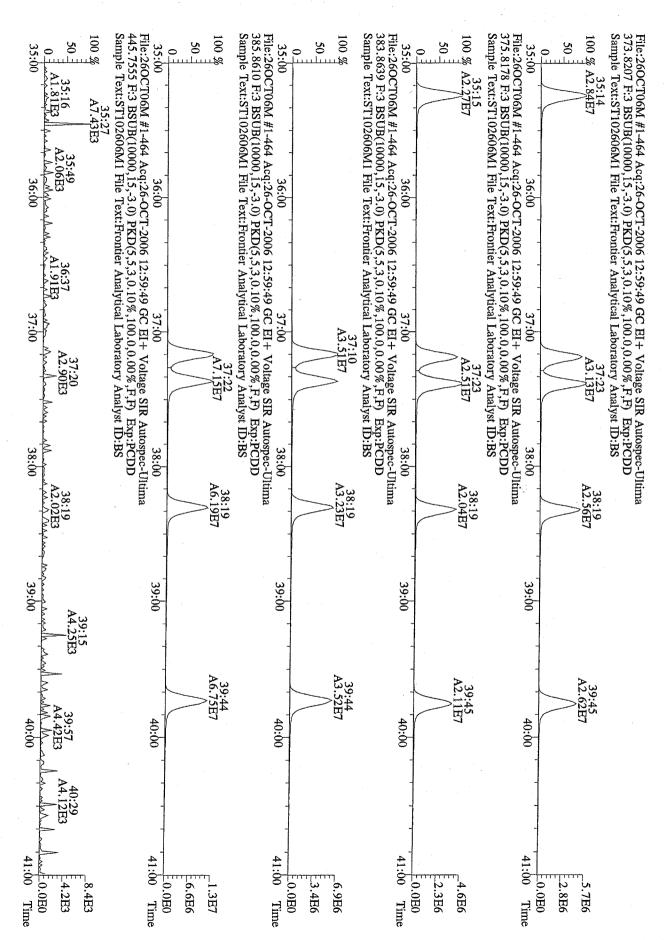


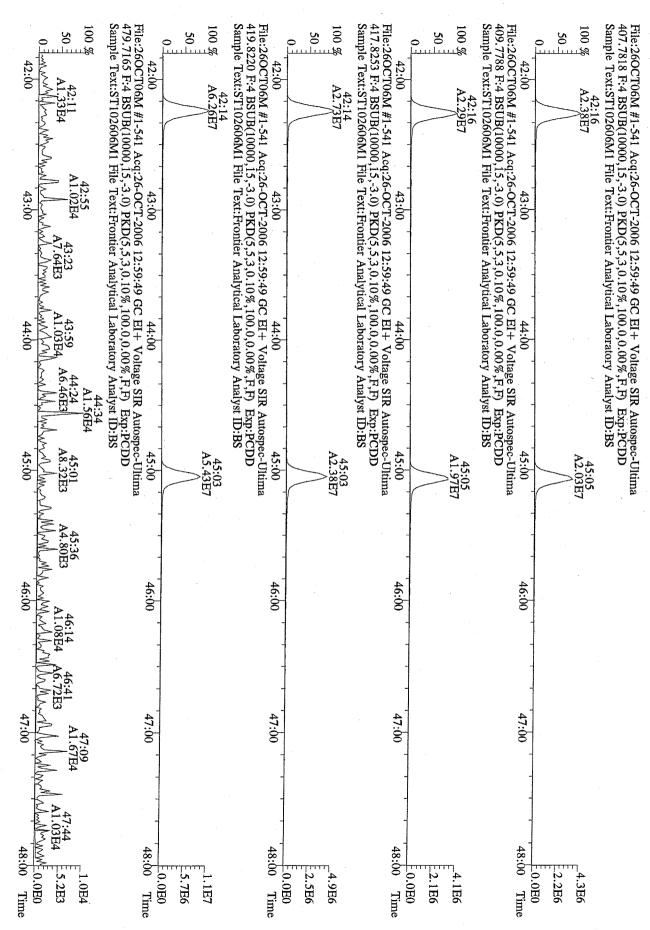


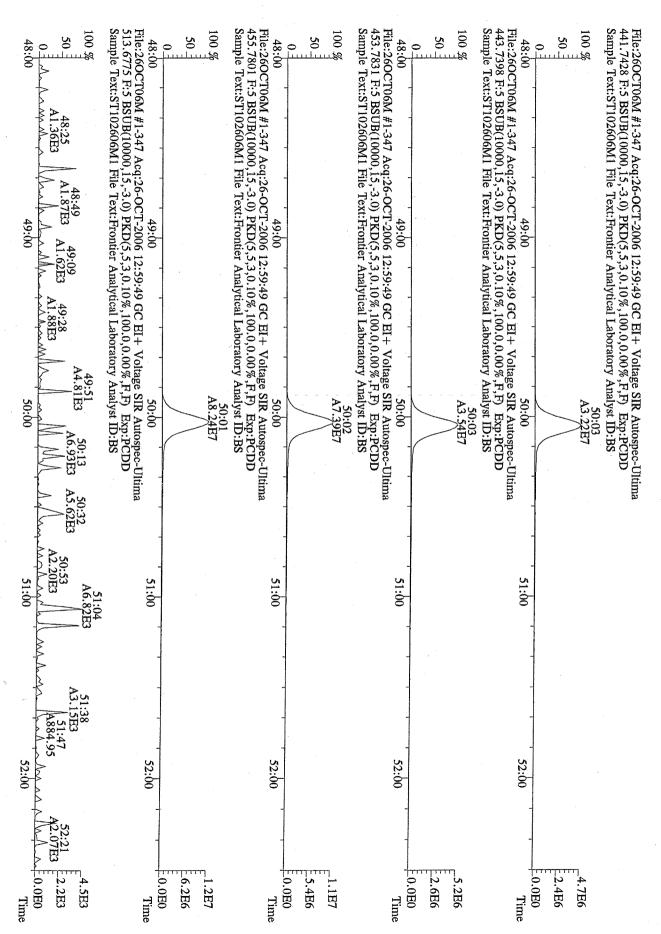


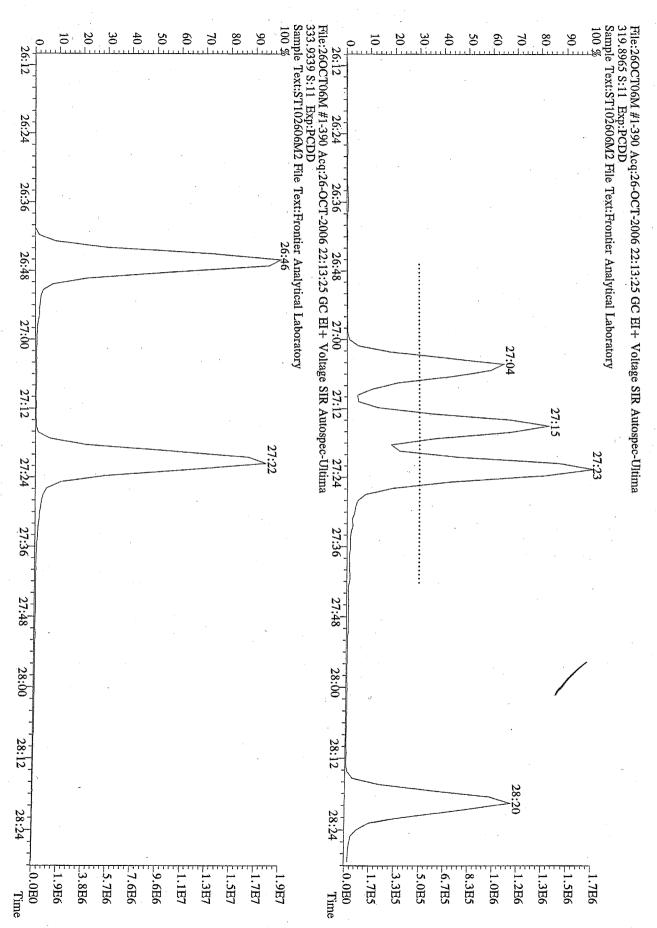


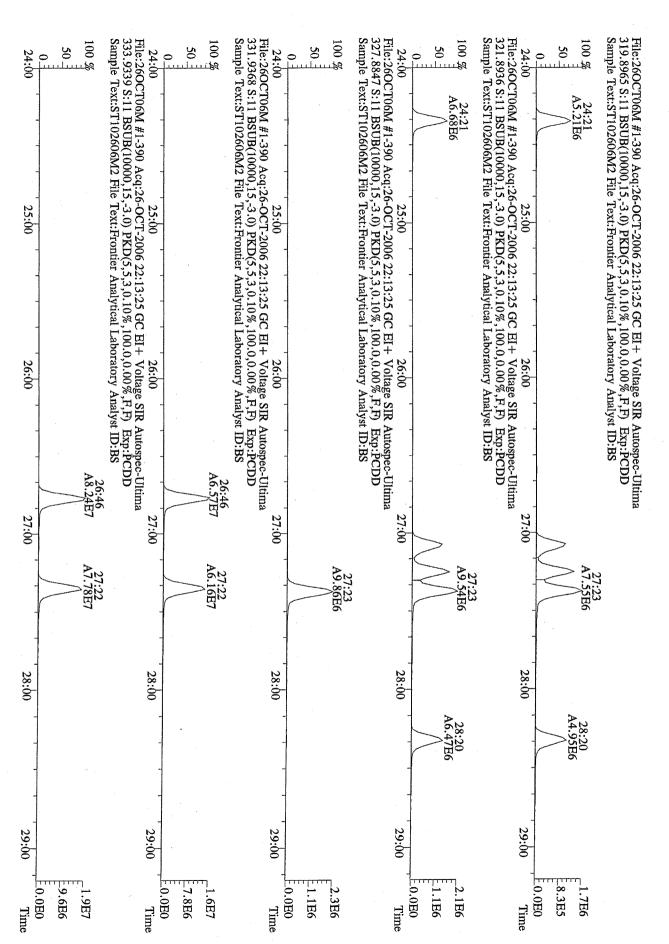


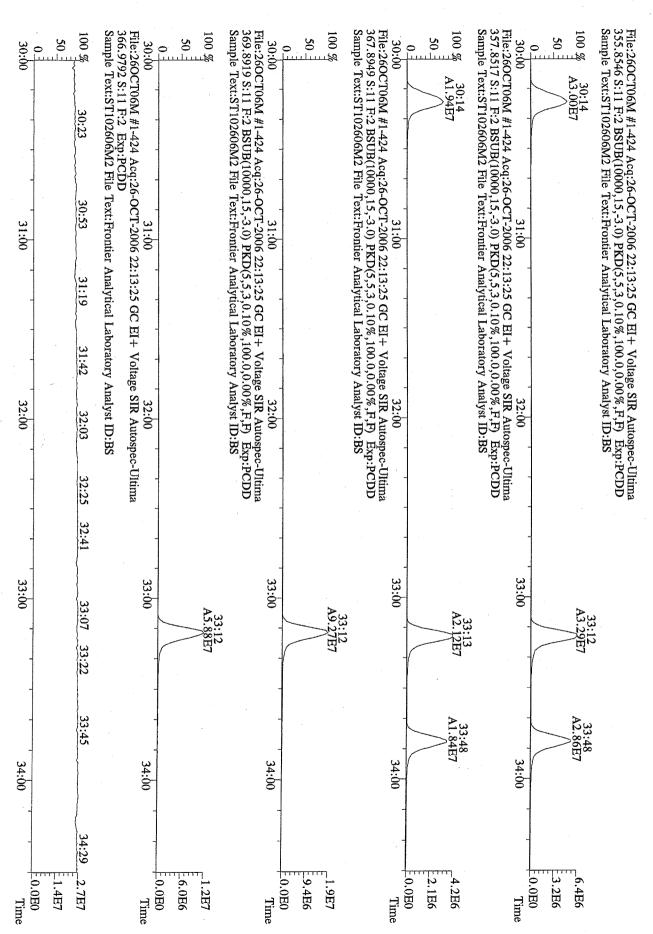


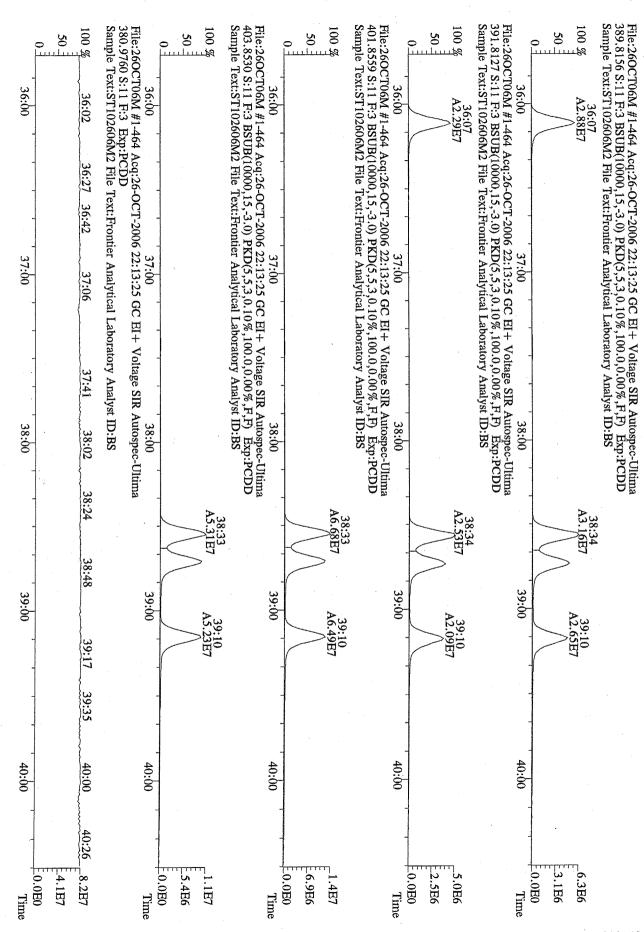


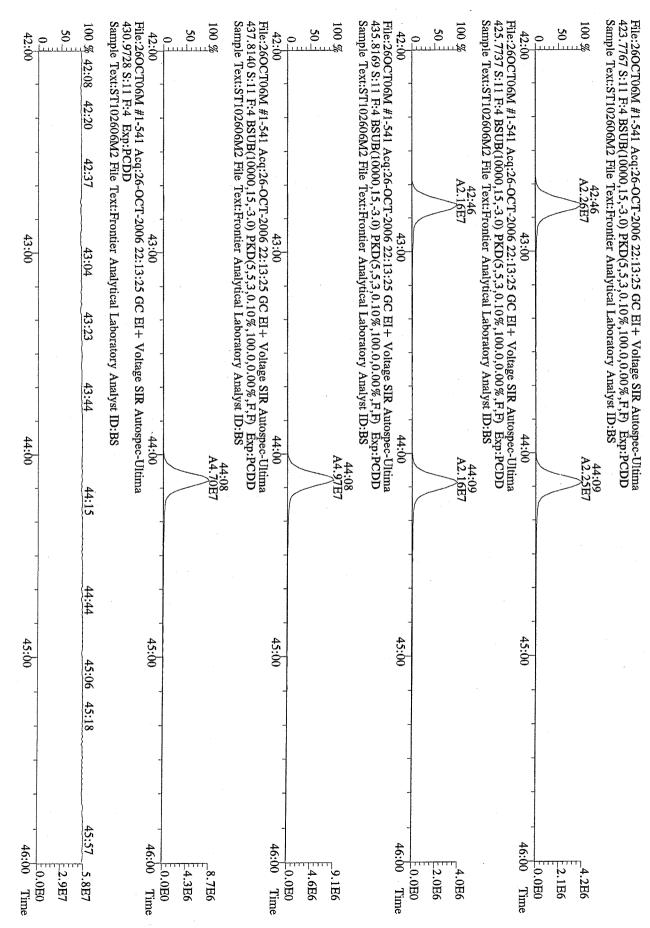


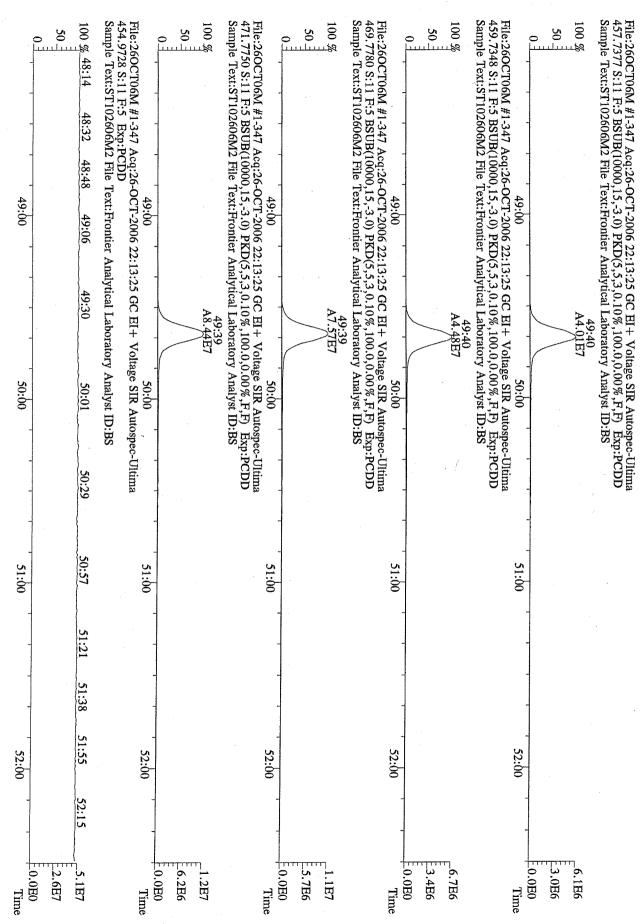


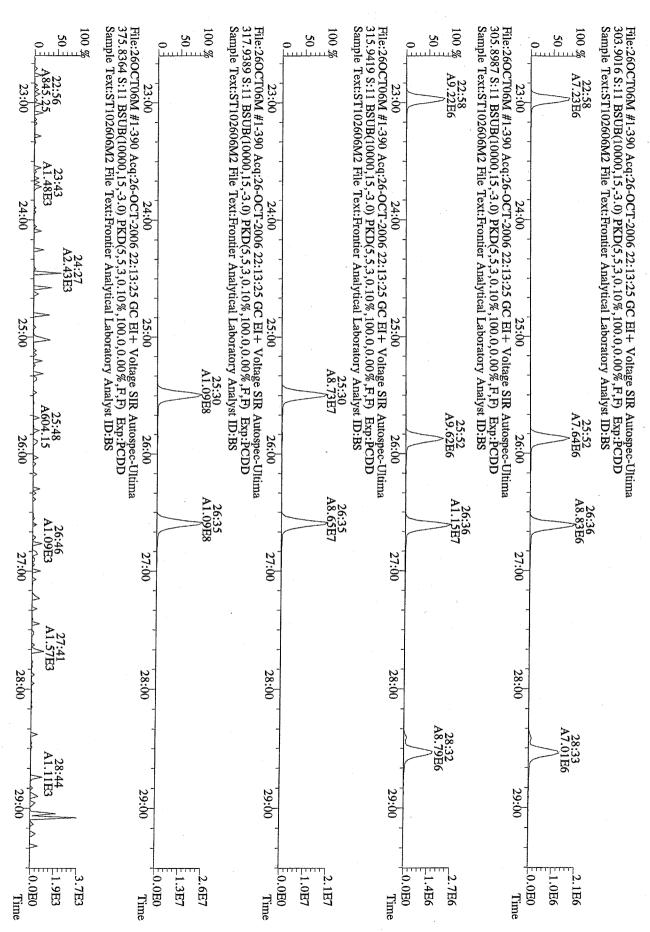


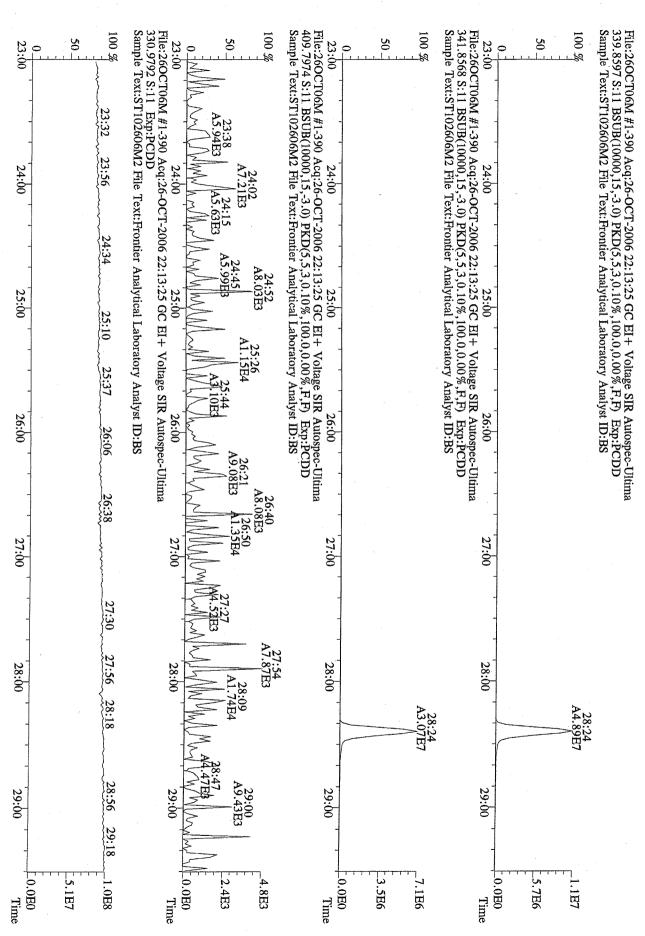


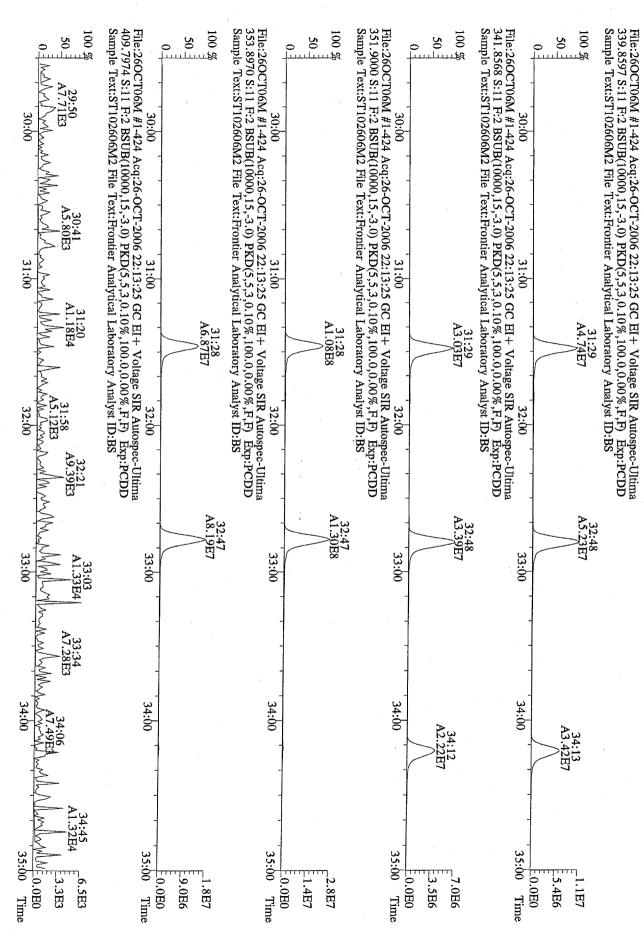


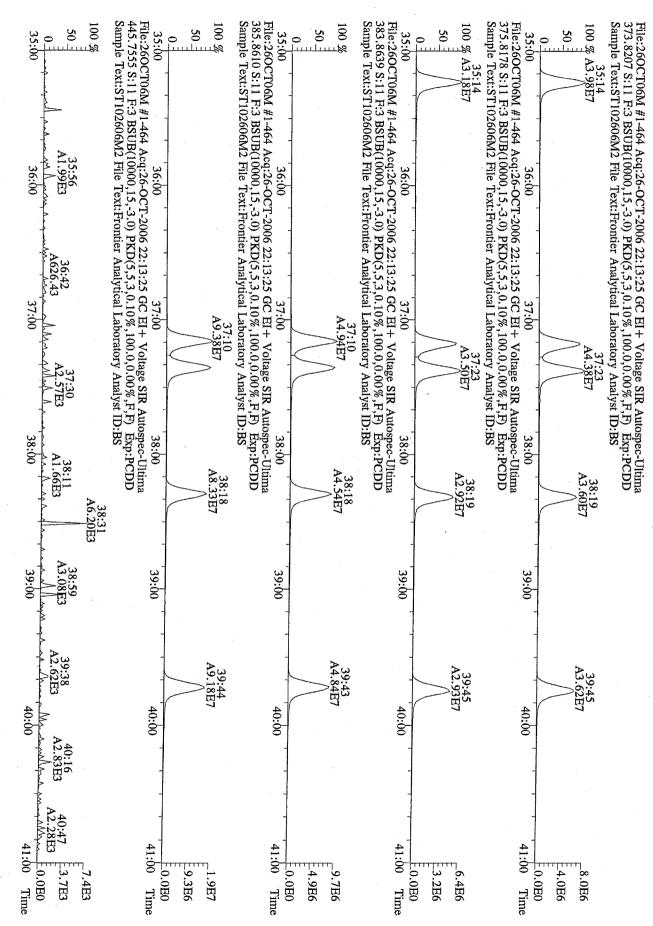


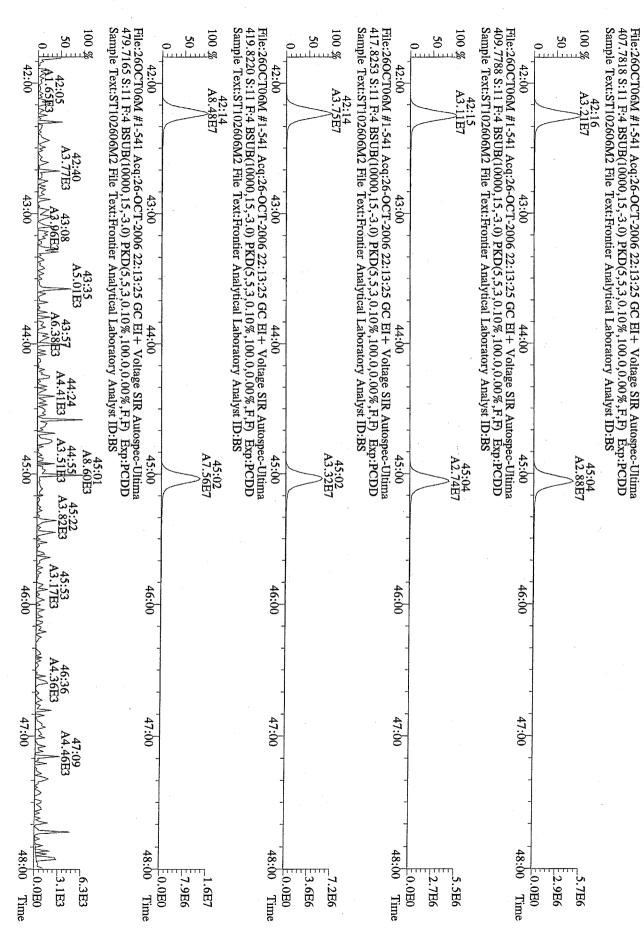


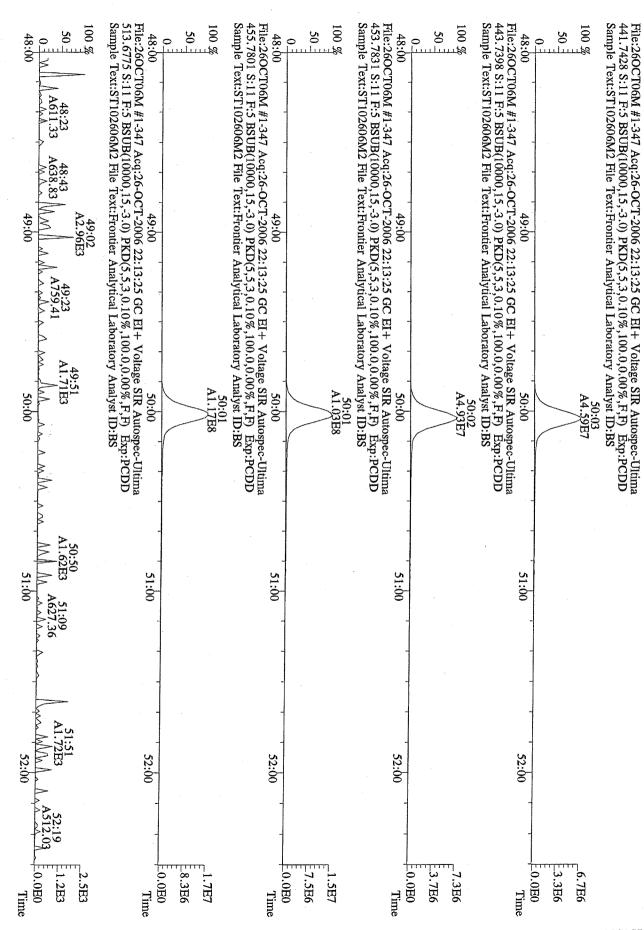












Frontier Analytical Laboratory - Acquisition Log

Run Name:260CT06M

Instrument: FAL3

GC: DB5

Experiment:PCDD

			·				
Data File	s	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
260CT06M	1	ST102606M1	1613 CS3 (061011J)	26-OCT-06 12:59:49	ST102606M1	ST102606M2	.DA
260CT06M	2	0990-001-0001-0PR	OPR	26-OCT-06 13:55:12	ST102606M1	ST102606M2	DV
260CT06M	3	0990-001-0001-MB	Method Blank	26-OCT-06 14:50:36	ST102606M1	ST102606M2	DV
260CT06M	4	4117-001-X002-SA	WWTP Eff. Comp.	26-OCT-06 15:46:00	ST102606M1	ST102606M2	DV
260CT06M	5	4118-001-X002-SA	IPJ1685-01	26-OCT-06 16:41:22	ST102606M1	ST102606M2	DV
.260CT06M	6	4120-001-X002-SA	6100583-01	26-OCT-06 17:36:42	ST102606M1	ST102606M2	DV
260CT06M	7	4123-001-0001-SA	IPJ1836-01	26-OCT-06 18:32:01	ST102606M1	ST102606M2	DV
260CT06M	8	4123-003-0001-SA	IPJ1836-03	26-OCT-06 19:27:17	ST102606M1	ST102606M2	DV
260CT06M	9	4123-002-0001-SA	IPJ1836-02	26-OCT-06 20:22:38	ST102606M1	ST102606M2	DV
260CT06M	10	SB102606M	Solvent Blank	26-OCT-06 21:18:01	ST102606M1	ST102606M2	DV
260CT06M	11	ST102606M2	1613 CS3 (061011J)	26-OCT-06 22:13:25	ST102606M1	ST102606M2	DV

610/07/04

ata	Backed	Up:	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
ate:				

Acquired: 26-0CT-06 12:59:49 ICal: PCDDFAL3-10-24-06 Filename: 260CT06M Sam: 1 FAL ID: ST102606M1 EndCal: ST102606M2 ConCal: ST102606M1 Client ID: 1613 CS3 (061011J) NATO 1989 Tox: 103 Amount: 1.000 GC Column: DB5 Results: WHO 1998 Tox: 128 DL Noise RA RT RRF Conc Qual Fac Resp Name 2.50 2.3.7.8-TCDD 1.18e+07 0.76 y 27:23 1.19 9.80 2.50 1,2,3,7,8-PeCDD 3.96e+07 1.55 y 33:13 0.69 50.9 2.50 0.94 49.2 1.2.3.4.7.8-HxCDD 4.14e+07 1.24 y 38:35 2.50 1,2,3,6,7,8-HxCDD 3.61e+07 1.23 y 38:44 0.81 51.5 2,50 1,2,3,7,8,9-HxCDD 3.42e+07 1.26 y 39:11 52.5 0.74 2.50 1,2,3,4,6,7,8-HpCDD 3.31e+07 1.07 y 44:10 0.89 52.3 102 2.50 1.03 OCDD 6.08e+07 0.87 y 49:41 2.50 10_8 2.3.7.8-TCDF 1.46e+07 0.79 y 26:37 0.97 2.50 53.4 1.2.3.7.8-PeCDF 5.54e+07 1.54 y 31:29 0.82 2.50 52.7 2,3,4,7,8-PeCDF 6.20e+07 1.55 y 32:49 0.78 0.90 51.2 2.50 1,2,3,4,7,8-HxCDF 4.71e+07 1.25 y 37:11 2.50 1,2,3,6,7,8-HxCDF 5.64e+07 1.25 y 37:23 1.02 50.8 2.50 50.4 2,3,4,6,7,8-HxCDF 4.60e+07 1.25 y 38:19 0.97 2.50 51.5 1,2,3,7,8,9-HxCDF 4.73e+07 1.24 y 39:45 0.89 2.50 0.99 52.3 1,2,3,4,6,7,8-HpCDF 4.67e+07 1.04 y 42:16 1,2,3,4,7,8,9-HpCDF 4.00e+07 1.03 y 45:05 ก่อล 52.3 2.50 0.84 103 2.50 OCDF 6.76e+07 0.91 y 50:03 Rec 99.9 99.9 0.95 13c-2,3,7,8-TCDD 1.01e+08 0.79 y 27:22 99.1 99.1 1.06 13C-1.2,3,7,8-PeCDD 1.12e+08 1.57 y 33:12 97.0 97.0 1.05 13C-1,2,3,4,7,8-HxCDD 8.93e+07 1.26 y 38:33 99.1 13c-1,2,3,6,7,8-HxCDD 8.62e+07 1.25 y 38:43 1.00 99.1 98.8 13C-1,2,3,4,6,7,8-HpCDD 7.09e+07 1.07 y 44:08 0.82 98.8 97.5 0.68 195 13C-OCDD 1.16e+08 0.89 y 49:40 93.8 93.8 0.98 13C-2.3.7.8-TCDF 1.38e+08 0.78 y 26:36 102 0.83 102 13C-1.2.3.7.8-PeCDF 1.26e+08 1.56 y 31:29 104 104 13C-2,3,4,7,8-PeCDF 1.52e+08 1.57 y 32:48 0.97 91.2 1.28 91.2 13c-1,2,3,4,7,8-HxCDF 1.02e+08 0.52 y 37:10 96.8 1.29 96.8 13C-1,2,3,6,7,8-HxCDF 1.09e+08 0.52 y 37:22 95.8 95 R 13C-2,3,4,6,7,8-HxCDF 9.42e+07 0.52 y 38:19 1.12 92.8 92.8 13c-1,2,3,7,8,9-HxCDF 1.03e+08 0.52 y 39:44 1.27 97.2 13C-1,2,3,4,6,7,8-HpCDF 8.98e+07 0.44 y 42:14 1.06 97.2 94.6 13C-1,2,3,4,7,8,9-HpCDF 7.81e+07 0.44 y 45:03 0.94 94.6 94.3 189 13C-OCDF 1.56e+08 0.90 y 50:02 0.95 105 0.65 10.5 37cl-2,3,7,8-TCDD 7.33e+06 27:23 52.8 13C-1,2,3,4-TCDD 1.07e+08 0.80 y 26:47 48.7 13C-1,2,3,4-TCDF 1.50e+08 0.80 y 25:30 56.7 13c-1,2,3,7,8,9-HxCDD 8.74e+07 1.30 y 39:10 Noise DL #Hom Fac 22 38.5 2.50 Total Tetra-Dioxins 4.65e+07 23:18 1.19 16 2.50 140 Total Penta-Dioxins 1.09e+08 30:15 0.69 17 207 2.50 36:08 0.83 Total Hexa-Dioxins 1.52e+08 38 2.50 0.89 109 42:47 Total Hepta-Dioxins 6.86e+07 2.50 18 0.97 38.0 22:59 Total Tetra-Furans 5.12e+07 2 52.9 2.50 PeCDF 0.80 28:24 1st Fn. Tot Penta-Furans 5.86e+07 2.50 20 199 0.80 146 30:10 Total Penta-Furans 1.62e+08 33 262 2.50 Total Hexa-Furans 2.53e+08 0.95 35:14 25 108 2.50 42:16 0.99 Total Hepta-Furans 8.98e+07

10/26/06

Date:

*9*1)

Analyst:_

FAL ID: ST102606M2 Filename: 260CT06M Sam:11 Acquired: 26-0CT-06 22:13:25 ICal: PCDDFAL3-10-24-06 Client ID: 1613 CS3 (061011J) ConCal: ST102606M1 EndCal: ST102606M2 Results: 4117 Amount: 1.000 NATO 1989 Tox: 104 GC Column: DB5 WHO 1998 Tox: 129 Name RΑ ŖΤ RRE Conc leu () Fac Noise DΙ Resp 10.3 2.50 2,3,7,8-TCDD 1.71e+07 0.79 y 27:23 1.19 1,2,3,7,8-PeCDD 5.41e+07 1.55 y 33:12 0.69 51.5 2.50 1,2,3,4,7,8-HxCDD 5.70e+07 1.25 y 38:34 0.94 50.4 2.50 49.9 2.50 1.2.3.6.7.8-HxCDD 4.75e+07 1.26 y 38:44 0.81 1,2,3,7,8,9-HxCDD 4.74e+07 1.27 y 39:10 0.74 53.9 2.50 2.50 1,2,3,4,6,7,8-HpCDD 4.41e+07 1.04 y 44:09 0.89 51.2 OCDD 8.50e+07 0.90 y 49:40 2.50 1.03 103 0.97 10.7 2.50 2,3,7,8-TCDF 2.03e+07 0.77 y 26:36 53.5 2.50 1,2,3,7,8-PeCDF 7.78e+07 1.57 y 31:29 0.82 0.78 52.4 2.50 2,3,4,7,8-PeCDF 8.62e+07 1.54 y 32:48 50.4 2.50 1,2,3,4,7,8-HxCDF 6.50e+07 1.25 y 37:10 0.90 1,2,3,6,7,8-HxCDF 7.88e+07 1.25 y 37:23 1.02 52.0 2.50 2,3,4,6,7,8-HxCDF 6.52e+07 1.23 y 38:19 0.97 52.3 2.50 1,2,3,7,8,9-HxCDF 6.55e+07 1.24 y 39:45 0.89 52.3 2.50 1,2,3,4,6,7,8-HpCDF 6.32e+07 1.03 y 42:16 0.99 52.0 2.50 1,2,3,4,7,8,9-HpCDF 5.62e+07 1.05 y 45:04 0.98 52.6 2.50 OCDF 9.52e+07 0.93 y 50:03 0.84 103 2.50 Rec 13C-2,3,7,8-TCDD 1.39e+08 0.79 y 27:22 99.3 0.95 99.3 1.58 y 33:12 13C-1,2,3,7,8-PeCDD 1.51e+08 1.06 96.7 96.7 13C-1,2,3,4,7,8-HxCDD 1.20e+08 1.26 y 38:33 97.0 1.05 97.0 1.17e+08 1.25 y 38:43 1.00 100 100 13C-1,2,3,6,7,8-HxCDD 13C-1,2,3,4,6,7,8-HpCDD 9.67e+07 1.06 y 44:08 0.82 100 100 13C-OCDD 1.60e+08 0.90 y 49:39 0.68 201 100 0.98 101 101 13C-2,3,7,8-TCDF 1.95e+08 0.79 y 26:35 0.83 109 109 13C-1,2,3,7,8-PeCDF 1.77e+08 1.57 y 31:28 13C-2,3,4,7,8-PeCDF 2.12e+08 1.59 y 32:47 0.97 111 111 1.28 95.3 95.3 13C-1,2,3,4,7,8-HxCDF 1.43e+08 0.53 y 37:10 1.29 98.6 98.6 13C-1,2,3,6,7,8-HxCDF 1.49e+08 0.52 y 37:21 13C-2,3,4,6,7,8-HxCDF 1.29e+08 0.54 y 38:18 1.12 97.6 97.6 13C-1,2,3,7,8,9-HxCDF 1.40e+08 0.53 y 39:43 1.27 94.5 94.5 98.7 13C-1,2,3,4,6,7,8-HpCDF 1.22e+08 0.44 y 42:14 1.06 98.7 13C-1,2,3,4,7,8,9-HpCDF 1.09e+08 0.44 y 45:02 0.94 98.3 98.3 99.0 13C-OCDF 2.20e+08 0.88 y 50:01 0.95 198 10.2 102 37Cl-2,3,7,8-TCDD 9.86e+06 27:23 0.65 13C-1,2,3,4-TCDD 1.48e+08 0.80 y 26:46 73.2 0.80 y 25:30 13C-1,2,3,4-TCDF 1.96e+08 63.6 13C-1,2,3,7,8,9-HxCDD 1.17e+08 1.24 y 39:10 76.1 Noise DL #Hom Fac Total Tetra-Dioxins 6.41e+07 24:21 1.19 38.6 2.50 14 * 2.50 15 Total Penta-Dioxins 1.52e+08 30:14 0.69 144 20 36:07 0.83 210 2.50 Total Hexa-Dioxins 2.07e+08 104 2.50 18 Total Hepta-Dioxins 8.94e+07 42:46 0.89 19 Total Tetra-Furans 7.06e+07 22:58 0.97 37.2 2.50 1st Fn. Tot Penta-Furans 7.96e+07 28:24 0.80 51.3 2.50 1 PeCDF Total Penta-Furans 2.25e+08 30:10 0.80 145 2.50 20 197 23 Total Hexa-Furans 3.51e+08 35:14 0.95 264 2.50 Total Hepta-Furans 1.22e+08 42:16 0.99 107 2.50 15

1DFA - FORM I-HR CDD-1 CDD/CDF SAMPLE DATA SUMMARY HIGH RESOLUTION

SAMPLE No. Method Blank

LAB NAME: FRONTIER ANALYTICAL LAB

LAB CODE: FALE

CASE NO.:

CONTRACT: TO NO.:

SDG NO.:

MATRIX: (SOIL/WATER/ASH/TISSUE/OIL) WATER SAMPLE wt/vol: 1000 (g/mL): mL

LAB SAMPLE ID: 0990-001-MB

WATER SAMPLE PREP: SPE (SEPF/SPE) CONCENTRATED EXTRACT VOLUME: 20

(uL)

LAB FILE ID: 260CT06M Sam: 3 DATE RECEIVED: 25-OCT-06 DATE EXTRACTED: 25-OCT-06

INJECTION VOLUME: 2 (uL) % SOLIDS/LIPIDS: NA

DATE ANALYZED: 26-OCT-06

GC COLUMN: DB5

ID: 0.25 (mm)

DILUTION FACTOR: NA

CONCENTRATION UNITS: (pg/L or ng/kg) pg/L

TARGET	SELECTED	PEAK	ION			•
ANALYTE	IONS	RT	RATIO #	CONCENTRATION	Q	EMPC/EDL
2,3,7,8-TCDD	320/322	NotFnd	*	*	U	0.762
2,3,7,8-TCDF	304/306	NotFnd	*	*	U	0.699
1,2,3,7,8-PeCDF	340/342	NotFnd	*	*	U	1.86
1,2,3,7,8-PeCDD	356/358	NotFnd	*	*	U	1.01
2,3,4,7,8-PeCDF	340/342	NotFnd	*	, *	U	1.65
1,2,3,4,7,8-HxCDF	374/376	NotFnd	*	*	U	1.26
1,2,3,6,7,8-HxCDF	374/376	NotFnd	*	*	U	1.15
1,2,3,4,7,8-HxCDD	390/392	NotFnd	*	*	U	2.01
1,2,3,6,7,8-HxCDD	390/392	NotFnd	*	*	U	2.66
1,2,3,7,8,9-HxCDD	390/392	NotFnd	*	*	U	2.85
2,3,4,6,7,8-HxCDF	374/376	NotFnd	*	*	U	1.33
1,2,3,7,8,9-HxCDF	374/376	NotFnd	*	*	U	1.45
1,2,3,4,6,7,8-HpCDF	408/410	NotFnd	*	*	U	1.37
1,2,3,4,6,7,8-HpCDD	424/426	NotFnd	*	*	U	2.18
1,2,3,4,7,8,9-HpCDF	408/410	NotFnd	*	*	U	1.57
OCDD	458/460	NotFnd	*	*	. U	3.65
OCDF	442/444	NotFnd	*	*	U	3.55

NOTE: Concentrations, Estimated Maximum Possible Concentrations (EMPCs), and Estimated Detection Levels (EDLs) for solid samples are calculated on a dry weight basis (except tissues, which are reported on a wet weight basis with % Lipids).

LABELED COMPOUNDS	SELECTED	PEAK	ION	ION RATIO	~	RECOVERY
	IONS	RT	RATIO #	LIMITS	% REC #	LIMITS
13C-2,3,7,8-TCDD	332/334	27:25	0.79	0.65-0.89	93.0	25-164
13C-1,2,3,7,8-PeCDD	368/370	33:13	1.57	1.32-1.78	97.5	25-181
13C-1,2,3,4,7,8-HxCDD	402/404	38:34	1.30	1.05-1.43	78.5	32-141
13C-1,2,3,6,7,8-HxCDD	402/404	38:44	1.21	1.05-1.43	76.4	28-130
13C-1,2,3,4,6,7,8-HpCDD	436/438	44:08	1.05	0.88-1.20	74.7	23-140
13c-ocdd	470/472	49:40	0.90	0.76-1.02	74.1	17-157
13C-2,3,7,8-TCDF	316/318	26:40	0.79	0.65-0.89	92.9	24-169
13C-1,2,3,7,8-PeCDF	352/354	31:29	1.56	1.32-1.78	108	24-185
13C-2,3,4,7,8-PeCDF	352/354	32:48	1.57	1.32-1.78	113	21-178
13C-1,2,3,4,7,8-HxCDF	384/386	37:11	0.53	0.43-0.59	74.9	26-152
13C-1,2,3,6,7,8-HxCDF	384/386	37:22	0.52	0.43-0.59	76.6	26-123
13C-1,2,3,7,8,9-HxCDF	384/386	39:45	0.52	0.43-0.59	74.2	29-147
13C-2,3,4,6,7,8-HxCDF	384/386	38:19	0.52	0.43-0.59	80.2	28-136
13C-1,2,3,4,6,7,8-HpCDF	418/420	42:14	0.45	0.37-0.51	71.9	28-143
13C-1,2,3,4,7,8,9-HpCDF	418/420	45:03	0.45	0.37-0.51	72.7	26-138
13C-OCDF	454/456	50:02	0.90	0.76-1.02	69.9	17-157
37cl-2,3,7,8-TCDD	328/NA	27:26	NA	NA	103	35-197

Column to be used to flag values outside (QC) limits.

DATE: 10/27/06

1DFB - FORM I-HR CDD-2 CDD/CDF TOXICITY EQUIVALENCE SUMMARY HIGH RESOLUTION

SAMPLE No. Method Blank

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

SDG NO.:

MATRIX: (SOIL/WATER/ASH/TISSUE/OIL) WATER

LAB SAMPLE ID: 0990-001-MB

SAMPLE wt/vol: 1000

(g/mL): mL

LAB FILE ID: 260CT06M Sam: 3

WATER SAMPLE PREP: SPE

(SEPF/SPE)

DATE RECEIVED: 25-OCT-06

CONCENTRATED EXTRACT VOLUME: 20

DATE EXTRACTED: 25-OCT-06

INJECTION VOLUME: 2 (uL) % SOLIDS/LIPIDS: NA

DATE ANALYZED: 26-OCT-06

GC COLUMN: DB5

ID: 0.25

(mm)

DILUTION FACTOR: NA

CONCENTRATION UNITS: (pg/L or ng/kg) pg/L

TARGET ANALYTE	CONCENTRATION	TEF*	TEF-ADJUSTED CONCENTRATION
2,3,7,8-TCDD	*	x 1.0 =	*
2.3.7.8-TCDF	*	x 0.1 =	*
1,2,3,7,8-PeCDF	*	x 0.05 =	*
1,2,3,7,8-PeCDD	*	x 0.5 =	*
2,3,4,7,8-PeCDF	*	x 0.5 =	*
1,2,3,4,7,8-HxCDF	*	x 0.1 =	*
1,2,3,6,7,8-HxCDF	*	x 0.1 =	*
1,2,3,4,7,8-HxCDD	*	x 0.1 =	*
1,2,3,6,7,8-HxCDD	**	x 0.1 =	*
1,2,3,7,8,9-HxCDD	*	x 0.1 =	*
2,3,4,6,7,8-HxCDF	*	x 0.1 =	*
1,2,3,7,8,9-HxCDF	*	x 0.1 =	*
1,2,3,4,6,7,8-HpCDF	*	x 0.01 =	*
1,2,3,4,6,7,8-HpCDD	*	x 0.01 =	*
1,2,3,4,7,8,9-HpCDF	*	x 0.01 =	*
OCDD	*	x 0.001 =	*
OCDF	*	x 0.001 =	*
		Total =	0.00

^{*} TEF - Toxicity Equivalent Factors from EPA/625/3-89/016 March 1989 - Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and Chlorinated Dibenzofurans (CDDs and CDFs) and 1989 Update

DATE: 10/27/06

2DF - FORM II-HR CDD CDD/CDF TOTAL HOMOLOGUE CONCENTRATION SUMMARY HIGH RESOLUTION

SAMPLE No. Method Blank

LAB NAME: FRONTIER ANALYTICAL LAB

CONTRACT:

LAB CODE: FALE

CASE NO.:

TO NO.:

SDG NO. :

MATRIX: (SOIL/WATER/ASH/TISSUE/OIL) WATER

LAB SAMPLE ID: 0990-001-MB

SAMPLE wt/vol: 1000

(g/mL) mL

LAB FILE ID: 260CT06M Sam: 3

WATER SAMPLE PREP: SPE

(SEPF/SPE)

DATE RECEIVED: 25-OCT-06

CONCENTRATED EXTRACT VOLUME: 20

DATE EXTRACTED: 25-OCT-06

INJECTION VOLUME: 2 (uL) % SOLIDS/LIPIDS: NA

DATE ANALYZED: 26-OCT-06

GC COLUMN: DB5

ID: 0.25 (mm)

DILUTION FACTOR: NA

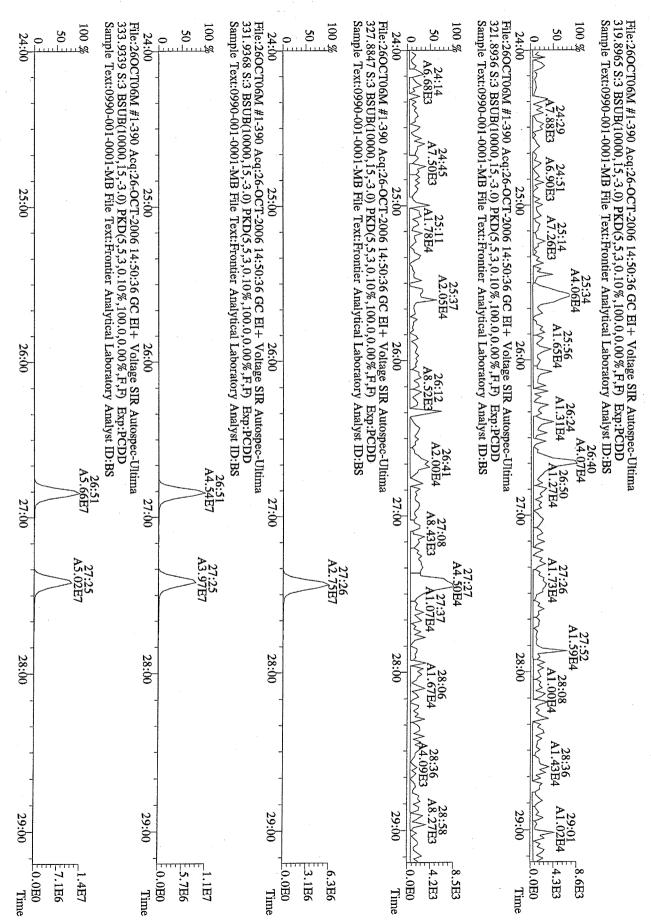
CONCENTRATION UNITS: (pg/L or ng/kg) pg/L

HOMOLOGUE	PEAKS	CONCENTRATION	Q	EMPC/EDL
DIOXINS				
Total TCDD	0	*	U	0.762
Total PeCDD	0	*	U	1.01
Total HxCDD	0	*	U	2.85
Total HpCDD	0	*	U	2.18
FURANS				
Total TCDF	0	*	U	0.699
Total PeCDF	0	*	U	1.86
Total HxCDF	0	*	U	1,45
Total HpCDF	0	*	U	1.57

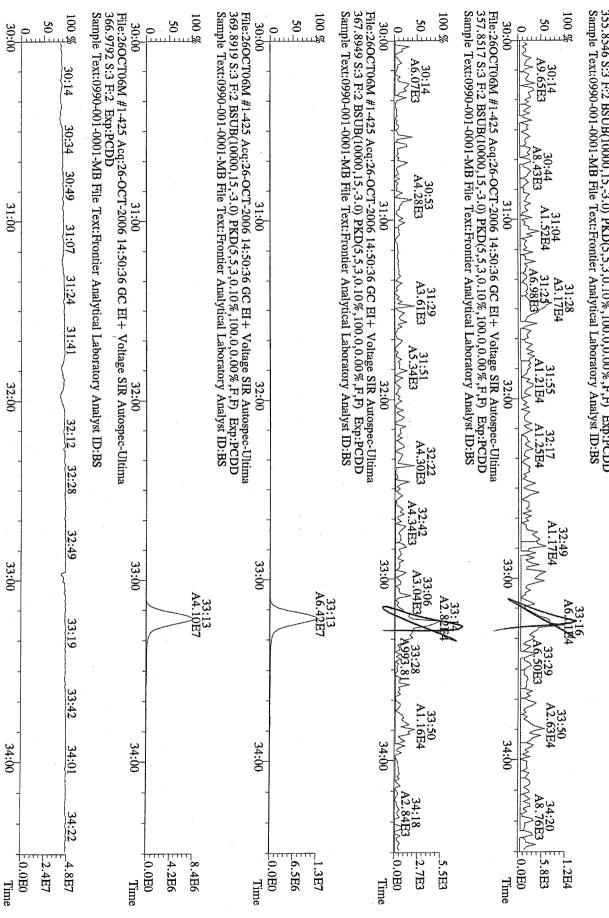
NOTE: Concentrations, Estimated Maximum Possible Concentrations (EMPCs), and Estimated Detection Limits (EDLs) for solid samples are calculated on a dry weight basis (except tissues, which are reported on a wet weight basis with % Lipids). The total homologue concentrations do not affect the TEF (Toxicity Equivalent Factor) calculations.

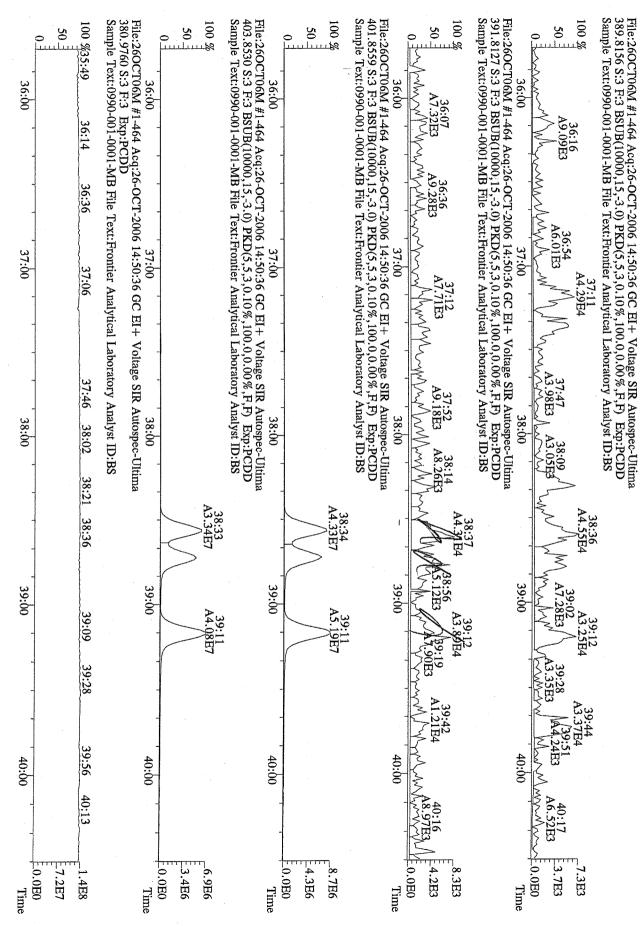
> DATE: 10/27/114 ANALYST:

> > 000163 of 000198

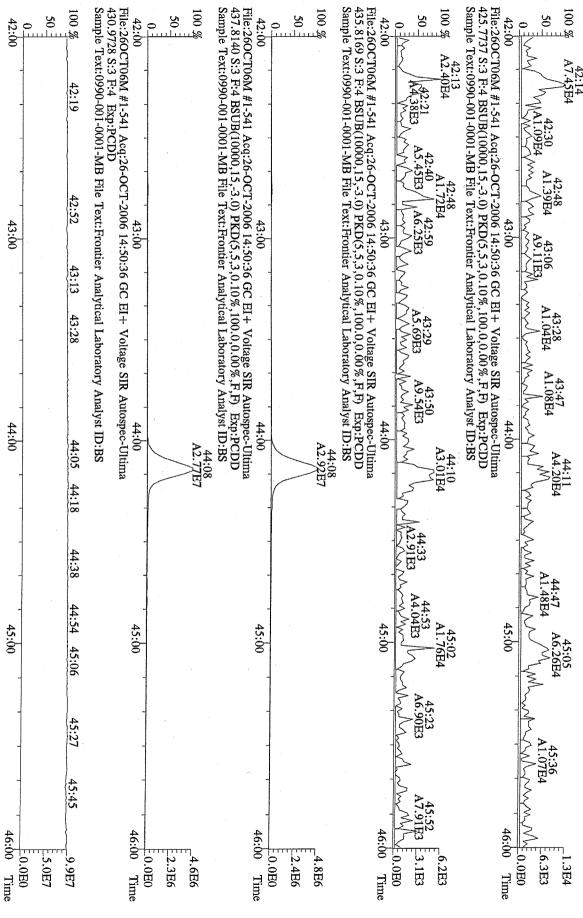


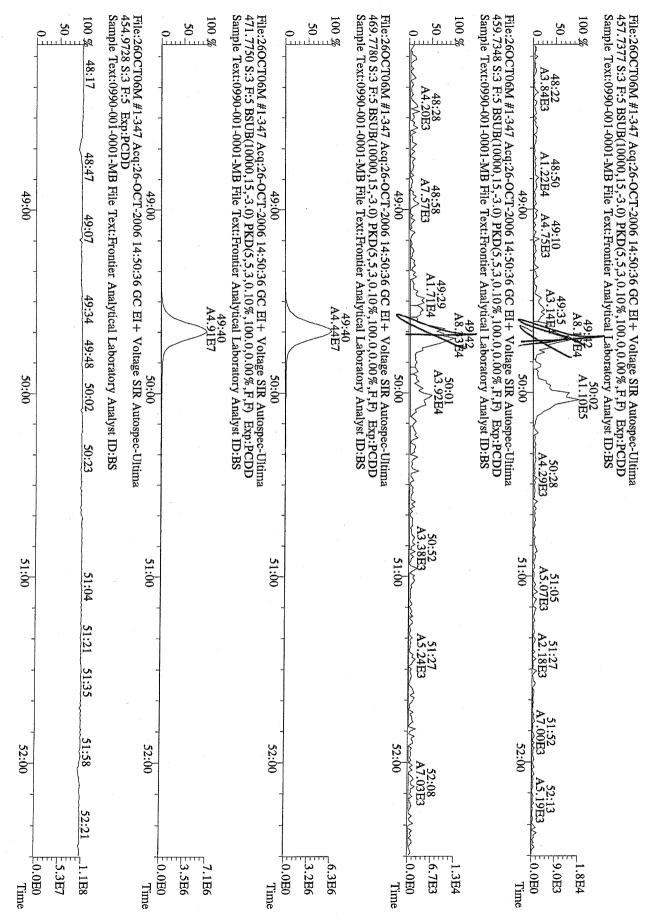
File:260CT06M #1-425 Acq:26-0CT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD Sample Text:0990-001-0001-MB File Text:Frontier Analytical Laboratory Analyst ID:BS

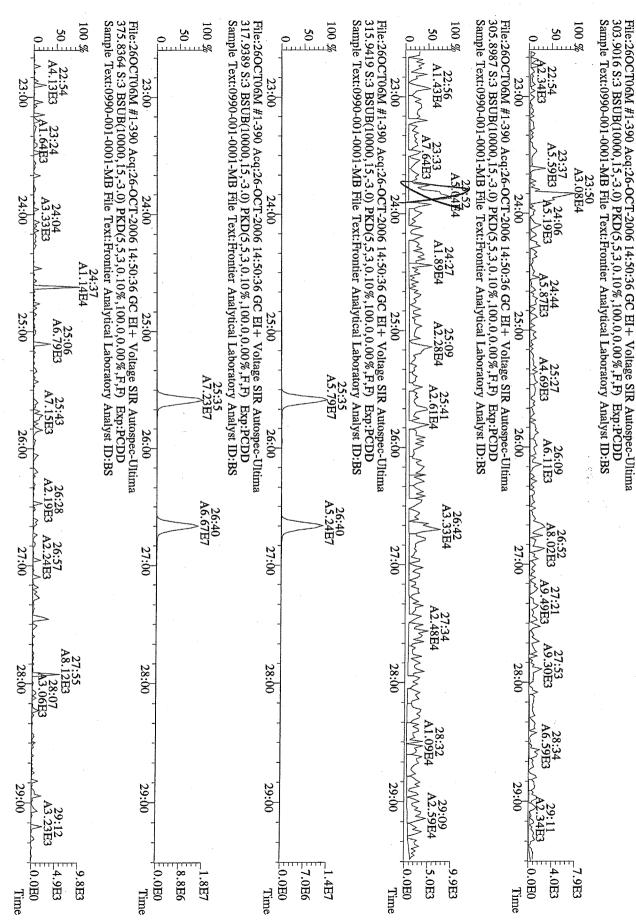




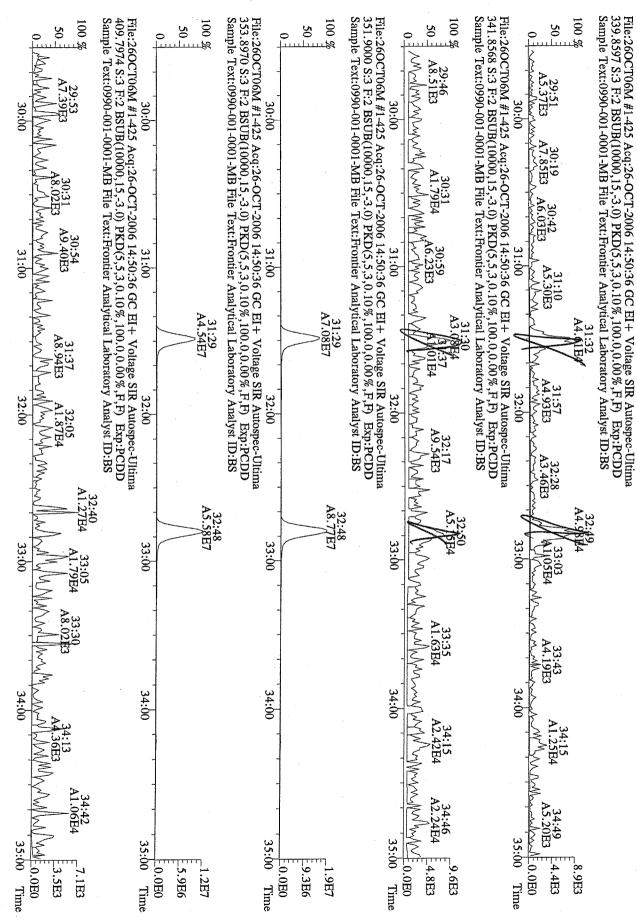
File:260CT06M #1-541 Acq:26-OCT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD Sample Text:0990-001-0001-MB File Text:Frontier Analytical Laboratory Analyst ID:BS



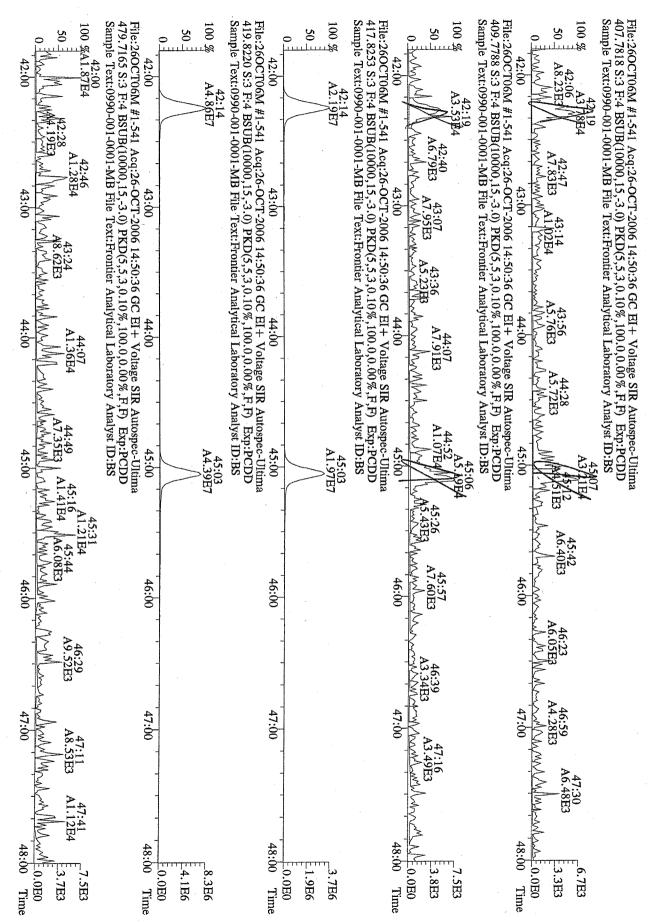


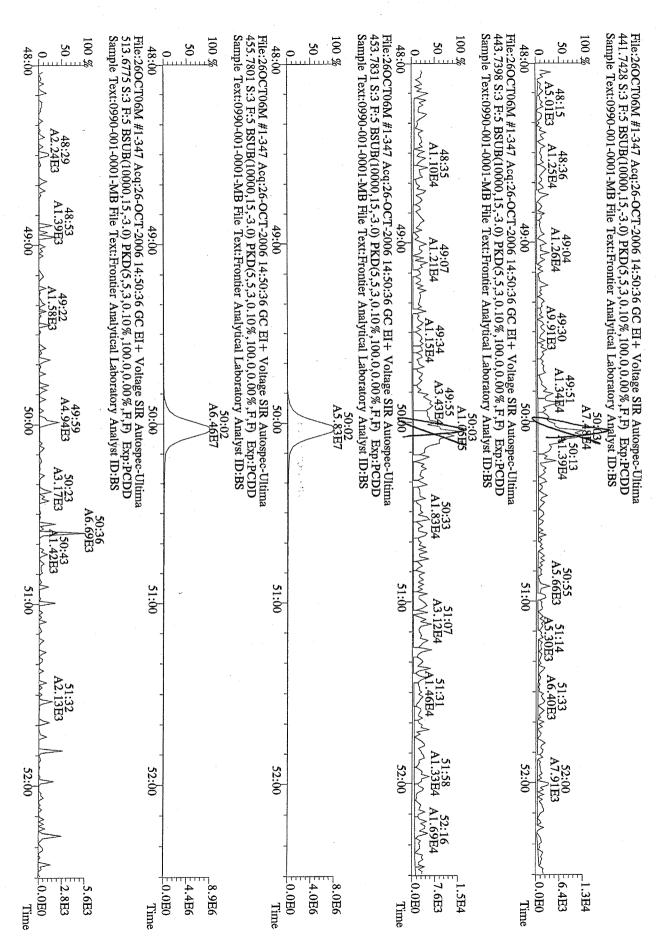


File:260CT06M #1-390 Acq:26-OCT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD Sample Text:0990-001-0001-MB File Text:Frontier Analytical Laboratory Analyst ID:BS File:26OCT06M #1-390 Acq:26-OCT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 409.7974 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD Sample Text:0990-001-0001-MB File Text:Frontier Analytical Laboratory Analyst ID:BS 100 % File:26OCT06M #1-390 Acq:26-OCT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 341.8568 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD Sample Text:0990-001-0001-MB File Text:Frontier Analytical Laboratory Analyst ID:BS 100 % 330.9792 S:3 Exp:PCDD 100 % 100 寒 Sample Text:0990-001-0001-MB File Text:Frontier Analytical Laboratory Analyst ID:BS File:26OCT06M #1-390 Acq:26-OCT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 50 50 23:00 50 23:16 A2.20E4 23:47 A2.13E4 23:54 A1.09E4 24:00 24:00 24:00 24:09 A4.78E4 24:36 25:00 25:00 25:13 A1.09E4 25:17 25:38 A1.45E4 25:42 A6.57E3 26:00 26:03 A1.16E 26:16 A1.52E4 26:27 27:00 27:08 A4.58E3 27:19 A2.82E4 28:00 28:00 28:00 28:15 28:22 A2.12E4 A1.46E4 28:37 28:50 A8.00E3 29:00 29:00 29:00 29:15 _8.6E7 0.0E0 _4.9E3 3.7E3 0.0E0 7.0E3 0.0E0 0.0E0 1.7E8 1.4E4 .8E3 .4E3 Time Time Time Time



File:260CT06M #1-464 Acq:26-OCT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD Sample Text:0990-001-0001-MB File Text:Frontier Analytical Laboratory Analyst ID:BS File:26OCT06M #1-464 Acq:26-OCT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 385.8610 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD Sample Text:0990-001-0001-MB File Text:Frontier Analytical Laboratory Analyst ID:BS File:260CT06M #1-464 Acq:26-OCT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD Sample Text:0990-001-0001-MB File Text:Frontier Analytical Laboratory Analyst ID:BS Sample Text: 0990-001-0001-MB File Text: Frontier Analytical Laboratory Analyst ID:BS File:260CT06M #1-464 Acq:26-OCT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 375.8178 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD 100 % 100 % 100 % 100 %File:26OCT06M #1-464 Acq:26-OCT-2006 14:50:36 GC EI+ Voltage SIR Autospec-Ultima 445.7555 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD Sample Text:0990-001-0001-MB File Text:Frontier Analytical Laboratory Analyst ID:BS 100 案 50 50. 50 -50 50 35:15 A1.41E4 35:52 A8.62E3 My promotory 36:00 36:00 36:00 36:00 36:21 A6.26E3 ,09E4 A1.11E4 WWW A4.62E 37:00 37:00 37:00 A3.07E7 A5.83E7 MANNEY. 37:47 A2.09E3 37:50 A7.64E3 38:00 38:00 38:00 12. 38:19 A2.87E7 38:19 A5.49E7 38:27 A2.47E 38:51 39:00 39:00 39:00 39:00 39:00 39:42 A3.28E3 39:45 A5.72E7 39:45 A2.98E7 40:00 40:00 40:00 40:00 40:07 A3.77E3 A9.04E3 41:00 41:00 41:00 41:00 41:00 [1.3E4 5.6E6 0.0E0 _6.5E3 10.0E0 4.5E3 _0.0E0 2.3E3 0.0E0 2.9E6 -5.8E6 4.6E3 9.0E3 1.1E7 0.0E0 Time Time Time Time





esults: 4123 GC	: Column: a	מס במ	unount:	1.000					1909 Tox:	
Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise	DL	
2,3,7,8-TCDD	*	* n	NotFnd	1.19	*		2.50	2110	0.762	
1,2,3,7,8-PeCDD	*	* n	NotFnd	0.69	*		2.50	1180	1.01	
1,2,3,4,7,8-HxCDD	*	* n	NotFnd	0.94	*		2.50	2360	2.01	
1,2,3,6,7,8-HxCDD	*	* n	NotFnd	0.81	*		2.50	2360	2.66	
1,2,3,7,8,9-HxCDD	*	* n	NotFnd	0.74	*		2.50	2360	2.85	
1,2,3,4,6,7,8-HpCDD	*	* n	NotFnd	0.89	*		2.50	1790	2.18	
OCDD	*	* n	NotFnd	1.03	*		2.50	2650	3.65	
2,3,7,8-TCDF	*	* n	NotFnd	0.97	*		2.50		0.699	
1,2,3,7,8-PeCDF	*	* n	NotFnd	0.82	*		2.50	3050	1.86	
2,3,4,7,8-PeCDF	*	* n	NotFnd	0.78	*		2.50	. 3050	1.65	
1,2,3,4,7,8-HxCDF	*		NotFnd	0.90	*		2.50	2520	1.26	
1,2,3,6,7,8-HxCDF	*		NotFnd	1.02	*		2.50	2520	1.15	
2,3,4,6,7,8-HxCDF	*		NotFnd	0.97	*		2.50	2520	1.33	
1,2,3,7,8,9-HxCDF	*	* n	NotFnd	0.89	*		2.50	2520	1.45	
1,2,3,4,6,7,8-HpCDF	*	* n	NotFnd	0.99	*		2.50	2260	1.37	
1,2,3,4,7,8,9-HpCDF	*		NotFnd	0.98	*		2.50	2260	1.57	
OCDF	*	* n	NotFnd	0.84	*		2.50	2660	3.55	Rec
13C-2,3,7,8-TCDD	9.00e+07	0.79 y	27-25	0.95	1860					93.0
13C-1,2,3,7,8-PeCDD	1.05e+08	1.57 y		1.06	1950					97.5
13C-1,2,3,4,7,8-HxCDD	7.67e+07	1.30 y		1.05	1570					78.5
13C-1,2,3,4,7,8 HXCDD	7.05e+07	1.21 y		1.00	1530					76.4
13C-1,2,3,4,6,7,8-HpCDD	5.69e+07	1.05 y		0.82	1490					74.7
13C-OCDD	9.35e+07	•		0.68	2970					74.1
13C-2,3,7,8-TCDF	1.19e+08	0.79 y	26:40	0.98	1860					92.9
13C-1,2,3,7,8-PeCDF	1.16e+08	1.56 y	31:29	0.83	2150					108
13C-2,3,4,7,8-PeCDF	1.44e+08	1.57 y	32:48	0.97	2270					113
13C-1,2,3,4,7,8-HxCDF	8.89e+07	0.53 y	37:11	1.28	1500					74.9
13C-1,2,3,6,7,8-HxCDF	9.14e+07	0.52 y	37:22	1.29	1530					76.6
13C-2,3,4,6,7,8-HxCDF	8.36e+07	0.52 y	38:19	1.12	1600					80.2
13C-1,2,3,7,8,9-HxCDF	8.70e+07	0.52 y		1.27	1480					74.2
13C-1,2,3,4,6,7,8-HpCDF	7.05e+07	0.45 y		1.06	1440					71.9
13C-1,2,3,4,7,8,9-HpCDF	6.36e+07	0.45 y		0.94	1450					72.7
13C-OCDF	1.23e+08	0.90 y	50:02	0.95	2800					69.9
37cl-2,3,7,8-TCDD	2.75e+07		27:26	0.65	827					103
13C-1,2,3,4-TCDD	1.02e+08			-	50.4					
13C-1,2,3,4-TCDF	1.30e+08	0.80 y		-	42.3					
13C-1,2,3,7,8,9-HxCDD	9.27e+07	1.27 y	39:11	-	60.1		Fac	Noise	DL	#Hom
Total Tetra-Dioxins	*		NotFnd	1.19	*		2.50	2110	0.762	0
Total Penta-Dioxins	*		NotFnd	0.69	*		2.50	1180	1.01	0
Total Hexa-Dioxins	*		NotFnd	0.83	*		2.50	2360	2.85	0
Total Hepta-Dioxins	*		NotFnd	0.89	*		2.50	1790	2.18	0
Total Tetra-Furans	*		NotFnd	0.97	*		2.50	2160	0.699	0
1st Fn. Tot Penta-Furans	*		NotFnd	0.80	*		2.50	3050	1.86	0 PeCDF
Total Penta-Furans	*		NotFnd	0.80	*		2.50	3050	1.86	0.00
Total Hexa-Furans	*		NotFnd	0.95	*		2.50	2520		0
Total Hepta-Furans	*		NotFnd	0.99	*		2.50	2260		0

Analyst:

Date: 10/27/06

1DFA - FORM I-HR CDD-1 CDD/CDF SAMPLE DATA SUMMARY HIGH RESOLUTION

LAB NAME: FRONTIER ANALYTICAL LAB

CASE NO.:

CONTRACT:

LAB CODE: FALE

TO NO.:

MATRIX: (SOIL/WATER/ASH/TISSUE/OIL) Aqueous

SAMPLE wt/vol: 1000 (g/mL): mL WATER SAMPLE PREP: SPE

(SEPF/SPE)

CONCENTRATED EXTRACT VOLUME: 20

INJECTION VOLUME: 2 (uL) % SOLIDS/LIPIDS: NA

GC COLUMN: DB5

ID: 0.25 (mm)

SDG NO.:

LAB SAMPLE ID: 0990-001-OPR LAB FILE ID: 260CT06M Sam: 2

DATE RECEIVED: 25-OCT-06 DATE EXTRACTED: 25-OCT-06 DATE ANALYZED: 26-OCT-06

DILUTION FACTOR: NA

CONCENTRATION UNITS: (pg/L or ng/kg)

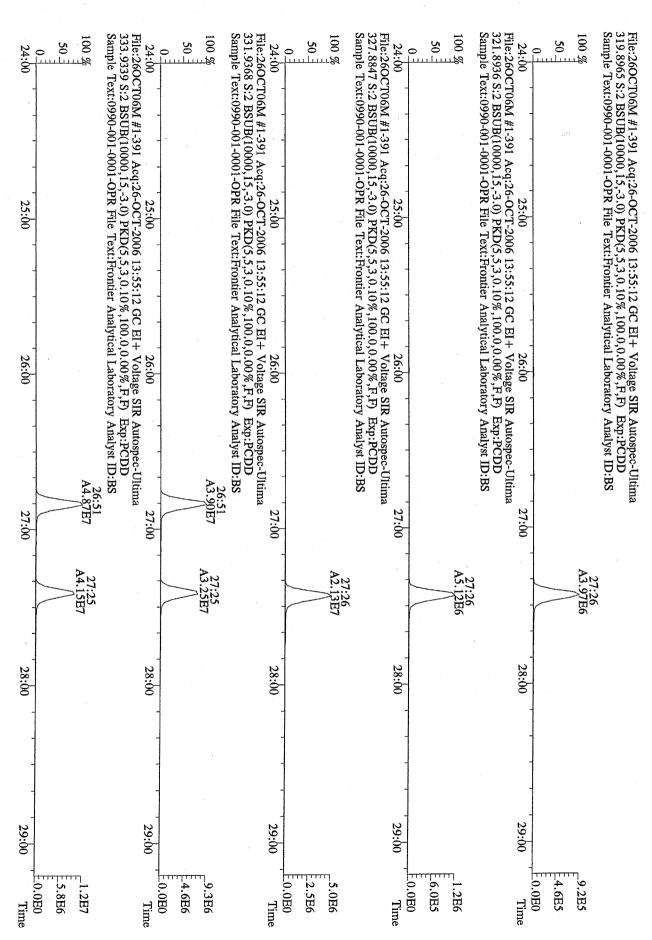
TARGET	SELECTED	PEAK	ION			
ANALYTE	IONS	RT	RATIO #	CONCENTRATION	Q	EMPC/EDL
2,3,7,8-TCDD	320/322	27:26	0.78	10.3		*
2,3,7,8-TCDF	304/306	26:41	0.78	11.4		*
1,2,3,7,8-PeCDF	340/342	31:30	1.52	54.6		*
1,2,3,7,8-PeCDD	356/358	33:14	1.56	52.3		*
2,3,4,7,8-PeCDF	340/342	32:49	1.56	55.3		*
1,2,3,4,7,8-HxCDF	374/376	37:12	1.25	52.5		*
1,2,3,6,7,8-HxCDF	374/376	37:23	1.24	53.4		*
1,2,3,4,7,8-HxCDD	390/392	38:34	1.29	51.9		*
1,2,3,6,7,8-HxCDD	390/392	38:44	1.22	53.7		*
1,2,3,7,8,9-HxCDD	390/392	39:11	1.26	54.2		*
2,3,4,6,7,8-HxCDF	374/376	38:20	1.25	53.7		*
1,2,3,7,8,9-HxCDF	374/376	39:45	1.23	53.8		*
1,2,3,4,6,7,8-HpCDF	408/410	42:16	1.04	55.0		*
1,2,3,4,6,7,8-HpCDD	424/426	44:09	1.06	53.4		*
1,2,3,4,7,8,9-HpCDF	408/410	45:04	1.06	54.8		. *
OCDD	458/460	49:41	0.87	109		*
OCDF	442/444	50:03	0.90	110		. *

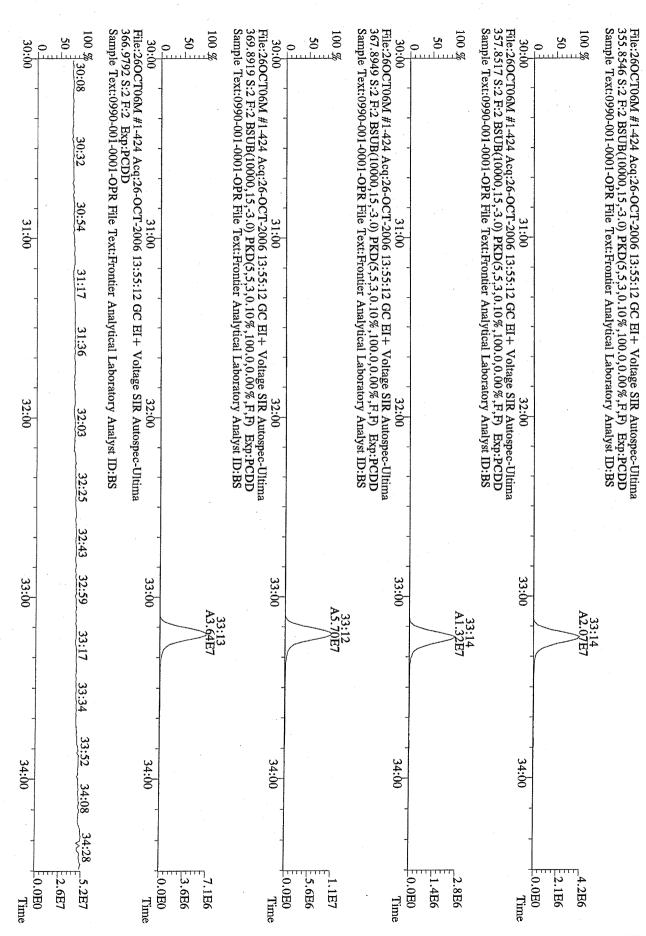
NOTE: Concentrations, Estimated Maximum Possible Concentrations (EMPCs), and Estimated Detection Levels (EDLs) for solid samples are calculated on a dry weight basis (except tissues, which are reported on a wet weight basis with % Lipids).

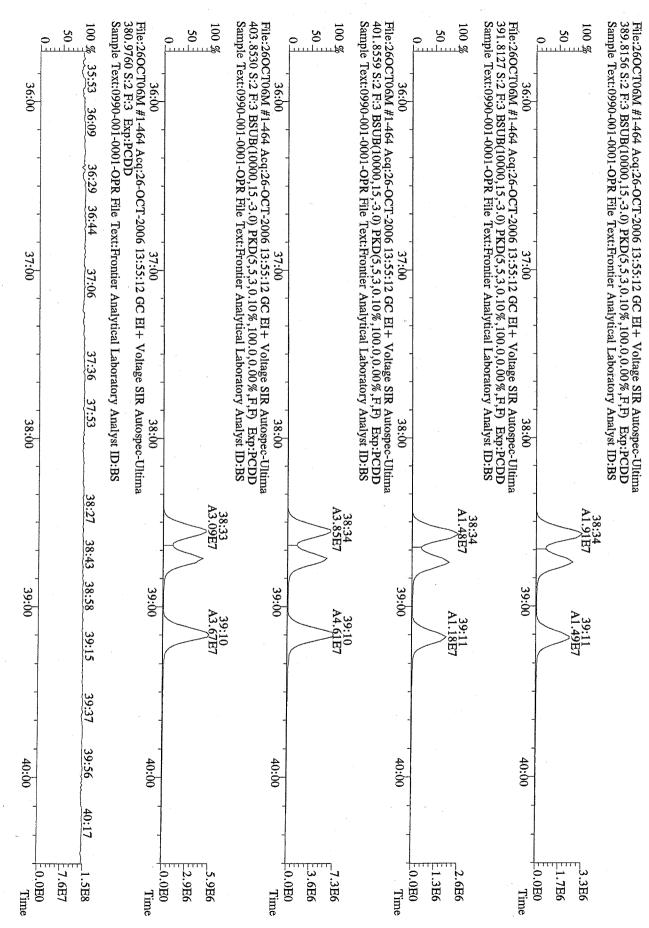
LABELED COMPOUNDS	SELECTED	PEAK	ION	ION RATIO		RECOVERY
	IONS	RT	RATIO #	LIMITS	% REC #	LIMITS
13C-2,3,7,8-TCDD	332/334	27:25	0.78	0.65-0.89	88.8	25-164
13C-1,2,3,7,8-PeCDD	368/370	33:12	1.57	1.32-1.78	101	25-181
13C-1,2,3,4,7,8-HxCDD	402/404	38:34	1.25	1.05-1.43	79.5	32-141
13C-1,2,3,6,7,8-HxCDD	402/404	38:43	1.26	1.05-1.43	76.6	28-130
13C-1,2,3,4,6,7,8-HpCDD	436/438	44:08	1.05	0.88-1.20	75.5	23-140
13C-OCDD	470/472	49:39	0.89	0.76-1.02	71.7	17-157
13C-2,3,7,8-TCDF	316/318	26:40	0.78	0.65-0.89	86.9	24-169
13C-1,2,3,7,8-PeCDF	352/354	31:29	1.57	1.32-1.78	99.6	24-185
13C-2,3,4,7,8-PeCDF	352/354	32:47	1.54	1.32-1.78	106	21-178
13C-1,2,3,4,7,8-HxCDF	384/386	37:10	0.53	0.43-0.59	77.3	26-152
13C-1,2,3,6,7,8-HxCDF	384/386	37:22	0.53	0.43-0.59	78.1	26-123
13C-1,2,3,7,8,9-HxCDF	384/386	39:44	0.53	0.43-0.59	75.4	29-147
13C-2,3,4,6,7,8-HxCDF	384/386	38:19	0.54	0.43-0.59	80.4	28-136
13C-1,2,3,4,6,7,8-HpCDF	418/420	42:15	0.45	0.37-0.51	73.1	28-143
13C-1,2,3,4,7,8,9-HpCDF	418/420	45:03	0.45	0.37-0.51	72.7	26-138
13C-OCDF	454/456	50:02	0.90	0.76-1.02	69.2	17-157
37cl-2,3,7,8-TCDD	328/NA	27:26	NA	NA	93.0	35-197

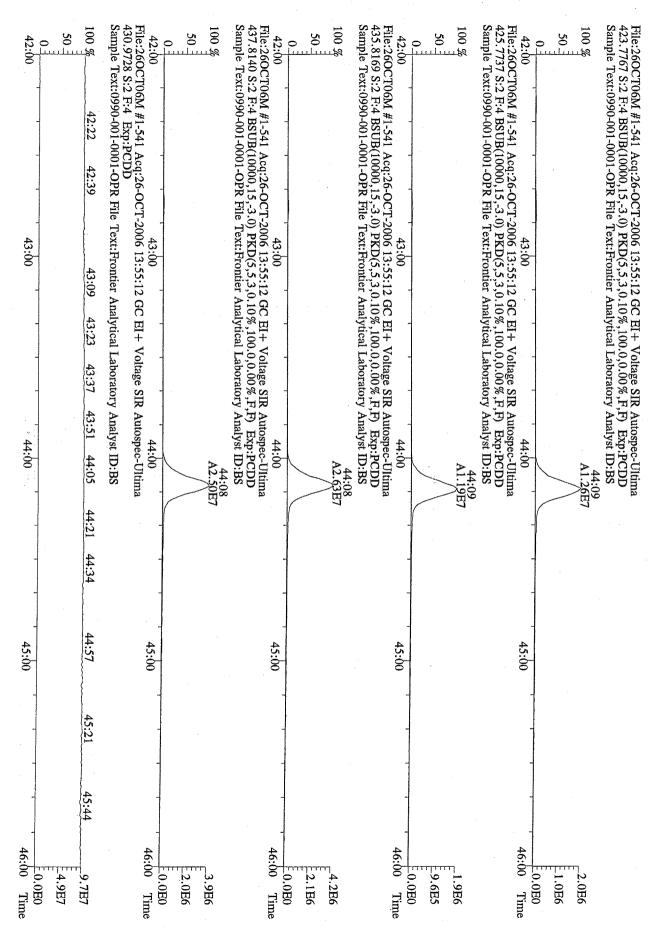
Column to be used to flag values outside (QC) limits.

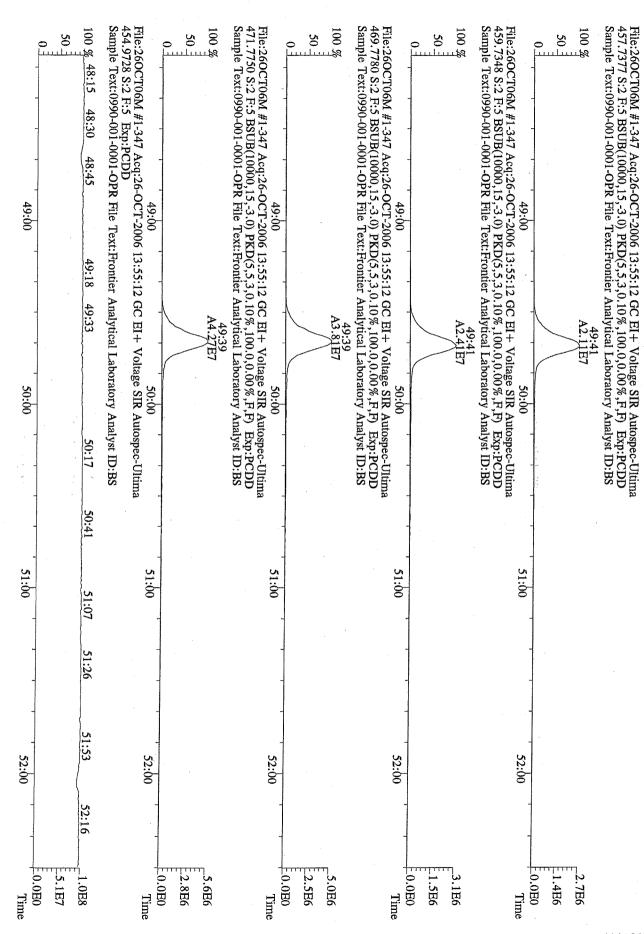
DATE:_ 10/27/06

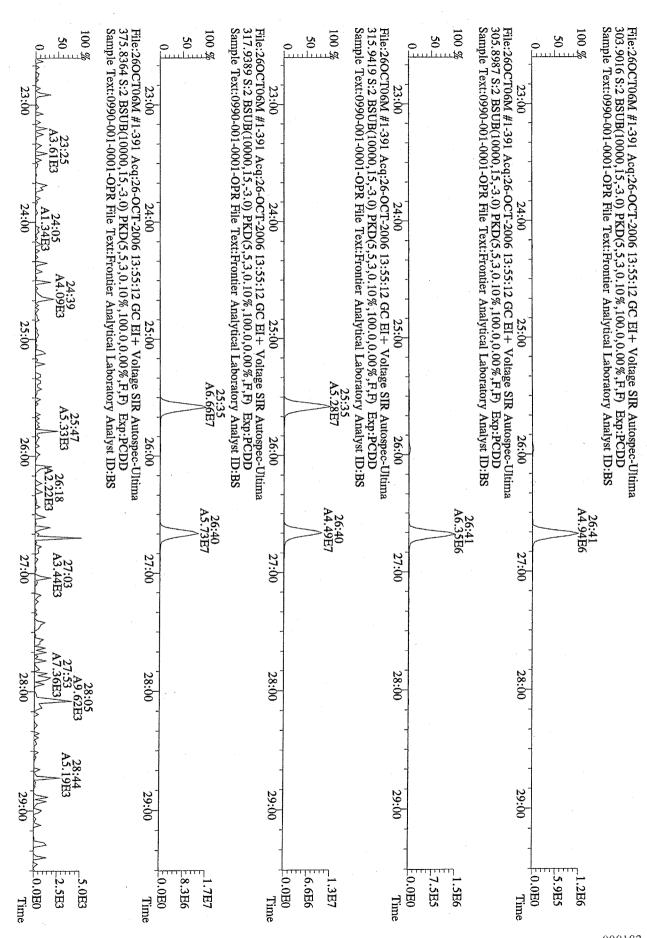




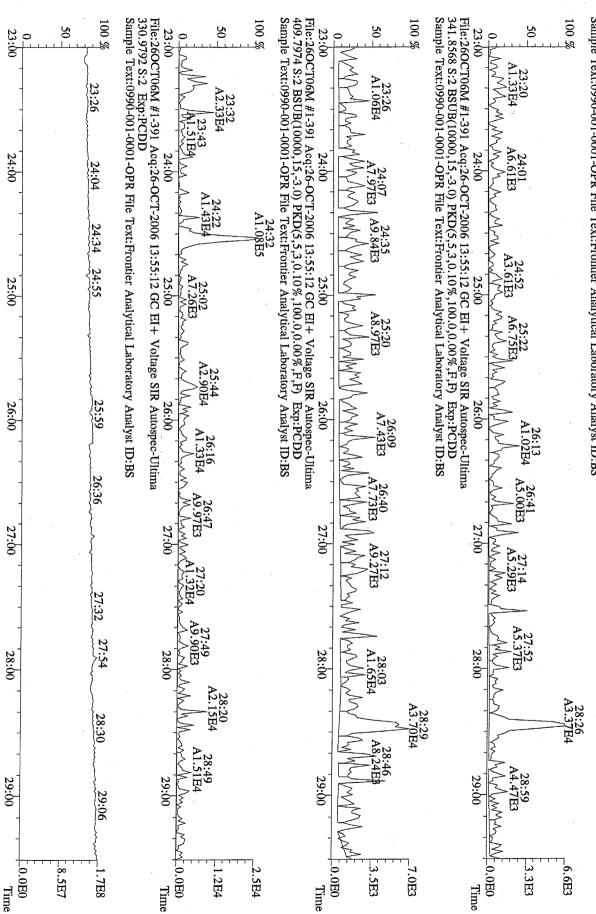


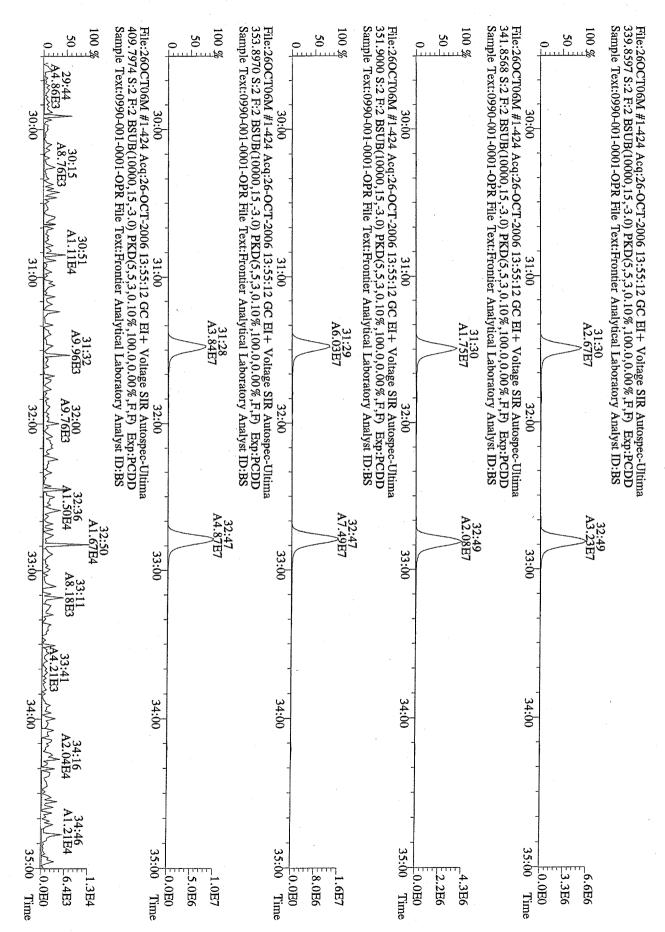


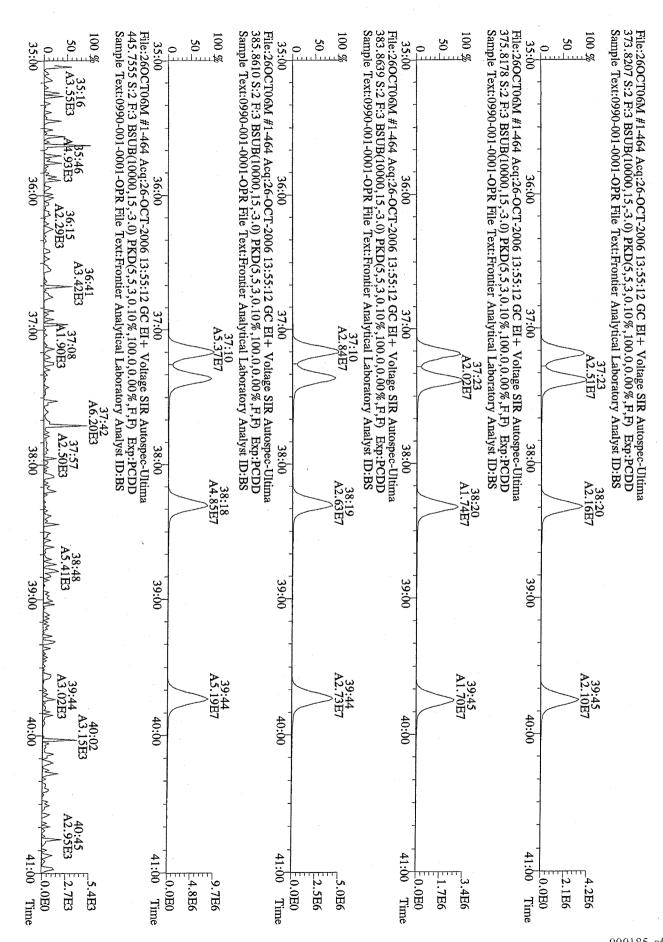


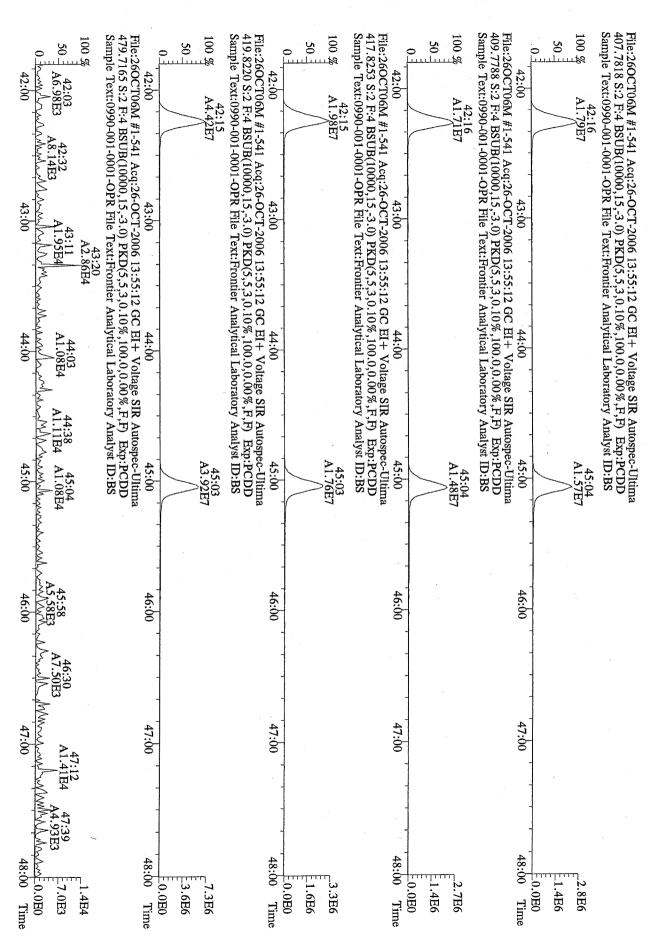


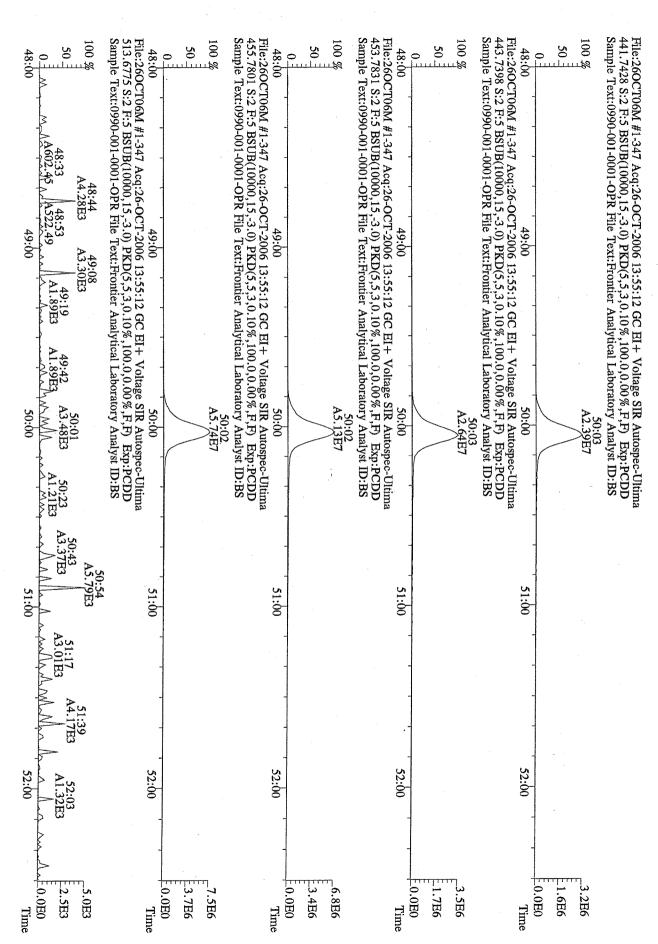
File:26OCT06M #1-391 Acq:26-OCT-2006 13:55:12 GC EI+ Voltage SIR Autospec-Ultima 339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:PCDD Sample Text:0990-001-0001-OPR File Text:Frontier Analytical Laboratory Analyst ID:BS











FAL ID: 0990-001-0001-OPR Filename: 260CT06M Sam:2 Client ID: OPR ConCal: ST102606M1 EndCal: ST102606M2 Results: 4123 GC Column: db5 Amount: 1.000 NATO 1989 Tox: 107 WHO 1998 Tox: 133 Name Resp RA RT RRF Conc Qual Fac Noise DL 2,3,7,8-TCDD 9.09e+06 0.78 y 27:26 10.3 1_19 2.50 1,2,3,7,8-PeCDD 3.39e+07 1.56 y 33:14 0.69 52.3 2.50 1,2,3,4,7,8-HxCDD 3.39e+07 1.29 y 38:34 0.94 51.9 2,50 1,2,3,6,7,8-HxCDD 2.76e+07 1.22 y 38:44 0.81 53.7 2.50 1,2,3,7,8,9-HxCDD 2.67e+07 1.26 y 39:11 0.74 54.2 2.50 1,2,3,4,6,7,8-HpCDD 2.44e+07 1.06 y 44:09 0.89 53.4 2.50 OCDD 4.52e+07 0.87 y 49:41 1.03 109 2.50 0.97 2.3.7.8-TCDF 1.13e+07 0.78 v 26:41 11.4 2.50 1.2.3.7.8-PeCDF 4.43e+07 1.52 v 31:30 0.82 54.6 2.50 2,3,4,7,8-PeCDF 5.31e+07 1.56 y 32:49 0.78 55.3 2.50 1,2,3,4,7,8-HxCDF 3.88e+07 1.25 y 37:12 0.90 52.5 2.50 1,2,3,6,7,8-HxCDF 4.54e+07 1.24 y 37:23 1.02 53.4 2.50 2,3,4,6,7,8-HxCDF 3.90e+07 1.25 y 38:20 0.97 53.7 2.50 1,2,3,7,8,9-HxCDF 3.81e+07 1.23 y 39:45 0.89 53.8 2.50 1,2,3,4,6,7,8-HpCDF 3.50e+07 1.04 y 42:16 0.99 55.0 2.50 1,2,3,4,7,8,9-HpCDF 3.06e+07 1.06 y 45:04 0.98 2.50 54.8 0.84 OCDF 5.02e+07 0.90 y 50:03 2.50 110 Rec 13C-2,3,7,8-TCDD 7.39e+07 0.78 y 27:25 0.95 88.8 88.8 13C-1,2,3,7,8-PeCDD 9.34e+07 1.57 y 33:12 1.06 101 101 13C-1,2,3,4,7,8-HxCDD 6.94e+07 1.25 y 38:34 1.05 79.5 79.5 13C-1,2,3,6,7,8-HxCDD 6.32e+07 1.26 y 38:43 76.6 1.00 76.6 13C-1,2,3,4,6,7,8-HpCDD 5.13e+07 1.05 y 44:08 75.5 75.5 0.82 13C-OCDD 8.08e+07 0.89 y 49:39 0.68 71.7 143 13C-2,3,7,8-TCDF 1.02e+08 0.78 y 26:40 0.98 86.9 86.9 99.6 13C-1,2,3,7,8-PeCDF 9.87e+07 1.57 y 31:29 0.83 99.6 13C-2,3,4,7,8-PeCDF 1.24e+08 1.54 y 32:47 0.97 106 106 13C-1,2,3,4,7,8-HxCDF 8.21e+07 0.53 y 37:10 77.3 77.3 1.28 13C-1,2,3,6,7,8-HxCDF 8.33e+07 0.53 y 37:22 78.1 1.29 78.1 13C-2,3,4,6,7,8-HxCDF 7.49e+07 0.54 y 38:19 1.12 80.4 80.4 13C-1,2,3,7,8,9-HxCDF 7.91e+07 0.53 y 39:44 1.27 75.4 75.4 13C-1,2,3,4,6,7,8-HpCDF 6.40e+07 0.45 y 42:15 1.06 73.1 73.1 13C-1,2,3,4,7,8,9-HpCDF 5.69e+07 0.45 y 45:03 0.94 72.7 72.7 13C-OCDF 1.09e+08 0.90 y 50:02 0.95 138 69.2 93.0 37Cl-2,3,7,8-TCDD 2.13e+07 27:26 0.65 37.2 13C-1,2,3,4-TCDD 8.78e+07 0.80 y 26:51 43.4 13C-1,2,3,4-TCDF 1.19e+08 0.79 y 25:35 38.8 13C-1,2,3,7,8,9-HxCDD 8.28e+07 1.25 y 39:10 53.7 Noise DL #Hom Fac Total Tetra-Dioxins 9.61e+06 23:04 1.19 10.9 2.50 23 Total Penta-Dioxins 3.47e+07 31:28 0.69 53.5 2.50 16 Total Hexa-Dioxins 8.92e+07 36:08 0.83 2.50 22 161 35 Total Hepta-Dioxins 2.61e+07 41:34 0.89 57.0 2.50 23:04 0.97 2.50 22 Total Tetra-Furans 1.22e+07 12.3 1st Fn. Tot Penta-Furans 2.89e+05 22:54 0.80 0.326 2.50 32 **PeCDF** Total Penta-Furans 1.00e+08 30:15 0.80 113 2.50 15 114 35:15 Total Hexa-Furans 1.63e+08 0.95 215 2.50 22 Total Hepta-Furans 6.75e+07 42:16 0.99 113 2.50 24

Analyst:

Date: 10/27/06

PROJECT REQUEST SHEET

Project #:	4118	Sample #:	1	Client Manager:	BS
Client:	TestAmerica - Irvine,	Storage:	<u>R1</u>	Hold Time:	10/28/2006
Matrix:	Aqueous	Extraction Batch:	0988 0990	Due Date:	11/10/2006
Method:	DLM02.0 D/F				
COMMEN	Sampl	e Full Weight (g)	NC-	ທ √ Weight (g)	<i>1</i>
	4118-001-0001-S	A 1526.	492.	<u> 78 </u>	
	4118-001-2002-5	529.0	1 493	.32	

Results: 4118	Instrument:	
	DB5	FAL-3
	DB225	
	DB1	
Extract/s located in box: "Las Perdias Perdidas"	Other	
Standards: 4118		
261 18/2 1/06		

Percent Solids

FAL Project: 4118

	Sample ID	Chemist	Date	Wet Sample Weight (g)	Dry Sample Weight (g)	% Solids	10g Equiv
234	118-001-0001-SA	GN	10/20/04	12.87	6.00	0%.	
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% Solids Summary:

Non-Filtered Determination

- 1. Place an aliquot of sample into a pre-weighed aluminum weighing boat. Use approximately two to ten grams for solid samples, approximately 10 mL for aqueous samples. Record the weight.
- 3. Dry sample overnight at approximately 110 C.

Filtered Determination

- Pre-weigh a glass fiber filter of appropriate pore size and pressure filter a sample aliquot (200-1000mL)
- 2. Air dry the filter and record the dry weight.

% Solids calculation

% solids = aliquot after drying/aliquot before drying x 100

- Samples containing one percent solids or less are prepared as aqueous samples.
- Samples containing greater than one percent solids prepared as solid samples.

EXTRACTION SHEET

Project #:

4118

Extraction Date:

2006-10-20

Extraction Chemist: GN

Method/Analysis:

DLM02.0 D/F

Procedure:

SPE/SOX

Solvent: Toluene

			r	T		T		T	
					IS		NS		CSS
				Amt:	10.0uL	Amt:	10.0uL	Amt:	10.0uL
				ID:	051212A	ID:	051212B	ID:	051212C
	Sample ID	Wet wt.	Dry wt.	Vial:	5	Vial:	3	Vial:	5
		(g/L)	(g/L)	Chemist/\	Witness/Date	Chemis	st/Witness/Date	Chemist	/Witness/Date
. ,	0988-001-0001-MB	7		1					
4109	0988-001-0001-OPR					 			1.
• ,	4118-001-0001-SA	1021	/	and A	unkala.		NA	1 ml	A ph3
	4116-001-0001-5A	1.036	<u> [</u>	gn A	Mojadae		17/4	6N	p_{n}
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CLEANUP SHEET

Project #:

<u>4118</u>

Method/Analysis:

DLM02.0 D/F

Splits:

<u>0</u>

Split Date:

N/A

Final Volume:

20.0uL

		Cleanup 1	Cleanup 2	Cleanup 3	RS
		MS 4/A COLLUMINA	. (\		Amt: 10.0uL
	Commis ID	ws dia norminiva	NA	NA	ID: 051212D Vial: 4
	Sample ID	Chemist/Date	Chemist/Date	Chemist/Date	Chemist/Witness/Date
	0988-001-0001-MB	Onemiatrate	Olembrate	Onomicobato	
H09 (0988-001-0001-OPR		-		
1,0 ,	4118-001-0001-SA	GN 10/23/04	NA	NA	6N A 10/23/0
-					
	11				
	nered and advantage of the state of the stat				
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				-	

EXTRACTION SHEET

Project #:

4118

Extraction Date:

2006-10-25

Extraction Chemist: GN

Method/Analysis:

DLM02.0 D/F

Procedure:

SPE/SOX

Solvent: Toluene

					IS		NS		CSS
	1			Amt:		Amt:	10.0uL	Amt:	10.0uL
				ID:	061011A	ID:	061011B	ID:	061011C
	Sample ID	Wet wt.	Dry wt.	Vial:		Vial:	1	Vial:	1
		(g/L)	(g/L)	Chemist	Witness/Date	Chemi	st/Witness/Date	Chemi	st/Witness/Date
	0990-001-0001-MB			1					
	0990-001-0001-OPR								1
	4118-001-X002-SA	1.036		GN &	10/25/64		NA	4N_	10/26
	· .					-			
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CLEANUP SHEET

Project #:

<u>4118</u>

Method/Analysis:

DLM02.0 D/F

Splits:

<u>0</u>

Split Date:

<u>N/A</u>

Final Volume:

20.0uL

	Cleanup 1	Cleanup 2	Cleanup 3	RS
				Amt: 10.0uL
	MSGLAGO Blumina	NA	VA	ID: 061011D
Sample ID		•		Vial: 1
	Chemist/Date	Chemist/Date	Chemist/Date	Chemist/Witness/Date
0990-001-0001-MB	`		·	
0990-001-0001-OPR				
4118-001-X002-SA	GN 10/26/06	NA	NA	GN A 10/28/0
			·	
				·
	41-41-41-41-41-41-41-41-41-41-41-41-41-4			
				·

Frontier Analytical Laboratory

Sample Check in/Check out/Disposal Log

FAL Project No. 4118



Check in / Check out

		Check	Check	To/from			Entire	
Sample Number/s	Dupes	in	out	Location	Date	Time	Used?	Initials
. 1	1	X		R1	2006-10-19	10:00:00		NM
1(10f2)				21	10/20/04	1005		GN
1(10f2)	-		-	RI	10/20/06		empty	GN
1(20f2)				21	10/25/06	1207	1	GN
1120f2)			-	RI		1615	empty	GN
							0	
	:							
		-			·			
			11					
					-			
	·			-				
				:				

DISCARD BOTTLES

	Over	Under	From		
Sample Number/s	1ppb*	1ppb	Location	Disposal Date/Time	Initials

^{*}Samples over 1ppb total of PCDDs/PCDFs , PCBs or PAHs require specialized disposal. Contact SafetyKleen to arrange disposal of any expired samples over the 1 ppb level.

From: Origin ID: (949)261-1022 Sample Control TESTAMERICA-IRVINE 17461 DERIAN AVE SUITE IRVINE, CA 92614



CI \$891485/19723

SHIP TO: (916)934-0900

BILL THIRD PARTY

Samples Receiving Frontier Analytical Lab - SUB 5172 Hillsdale Circle

El Dorado Hills, CA 95762



Snip Da
ActWgt:
ss System
Accoun

ActiVgt: 15 LB System#: 1184121/INET2500 Account#: S *********

REF: 122-173 SC



Delivery Address Bar Code

RELEASE#: 3785346

FORM

PRIORITY OVERNIGHT

THU

TRK# **7922 2508 5535**

Deliver By: 190CT06

11

SMF

· A2

95762 -CA-US



Shipping Label: Your shipment is complete

- 1. Use the 'Print' feature from your browser to send this page to your laser or inkjet printer.
- 2. Fold the printed page along the horizontal line.
- 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.





SUBCONTRACT ORDER - PROJECT # IPJ1685

SENDIN	G LABORATORY:		RECEIVING LABORATORY: Frontier Analytical Lab - SUB 5172 Hillsdale Circle El Dorado Hills, CA 95762				
TestAmerica - Irvine, CA							
17461 Derian Avenue. Suite	100						
Irvine, CA 92614							
Phone: (949) 261-1022	ı		Phone :(916) 93	4-0900			
Fax: (949) 260-3297			Fax: (916) 934-0	0999	•		
Project Manager: Patty Mata							
	·						
Work Order Comments:	Need method DLM	1020-Dioxins/Furan	is, Geotracker EDF, ERPI	IMS EDD.			
Standard TAT is requested	l unless specific du	ie date is request	ed => Due Date:		Initials:		
Analysis	Expiration	,	· ·	Comments	·		
Sample ID: IPJ1685-01 Wa *~ 8298/1613 -Dioxin-HR EDF	ter Sampled: 10/24/06 11:40 11/14/06 11:40	10/17/06 11:40		Sub Frontier Analytic Global=SL60379862	cal. Need DLM020 method		
Containers Supplied: 1 L Amber (IPJ1685-01A) 1 L Amber (IPJ1685-01B)							
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			•				
					•		
		SAMP	LE INTEGRITY:				
All containers intact: Yes Custody Seals Present: Yes		ample labels/COC agree imples Preserved Proper	/	Samples Received On Io Samples Received at (te			
Released By	nl 10/18 Dáte	8/06 Time	Received By	Muery	1 <i>8/19/96 1800</i> Time		
Released By	Date	Time	Received By	Date	Time 000197 of 00019 Page 1 of 1		
-			•		Page 1 of 1		

CDD/CDF SAMPLE LOG-IN SHEET (DC-1)

+ 501:0	1- A-01.11	cal lak	pora-to		1 1	
Lab Name Frontle	Page of					
Received By (Print Name)	Log-in Date					
Received By (Signature)	That M Muce	~		. ,		
Contract No.					TO No.	
Case No.		Sample Delive	ery Group N	o.	·	
Remarks:			Corres	ponding		
		EPA	Sample	Assigned	Remarks: Condition of Sample	
1. Custody Seal(s)	72	Sample #	Tag #	Lab #	Shipment, etc.	
1. Custody Seal(s)	resent Absent* Intact Broken		TP5 1685-01	4118-001-51		
2. Custody Seal Nos.					,	
2 Chair of Guatania			<u> </u>			
3. Chain of Custody Records	Present Absent*					
4. Traffic Reports or Packing Lists						
5. Airbill	Airbill Sticker Present Absent*					
6. Airbill No.	192225085635					
7. Sample Tags	Present/Absent*					
Sample Tag Numbers	Listed Not Listed on Chain of Custody Record					
8. Sample Condition	Intact Broken*/					
9. Cooler Temperature	0.C					
10. Does information on custody records and sample tags agree?	(es)No*	:				
11. Date Received at Laboratory	10/19/06					
12. Time Received	1000					
Sample Tra						
Fraction	Fraction					
Area # Sco Pro Sopro	Area #fty Tith Ap-In	₩.				
By lobe ON GN	By GN GN					
on 10/20/04 10/5/02	on lobiloc lobelex					
* Contact TOPO and at	1 1					
Reviewed By		**************************************	Logbook No	·		
Date		Logbook Page No.				